TOMBEAU D'UN ASTROLOGUE THÉBAIN DE LA XVIII^E DYNASTIE.

Par P. HIPPOLYTE-BOUSSAC, Architecte (Paris).

L'ÉTUDE des syringes égyptiennes est du plus haut intérêt; en nous révélant, jusque dans ses moindres détails, la vie des premiers habitants de la vallée du Nil, les sujets qui se développent sur les parois de ces monuments nous permettent parfois de résoudre des questions historiques restées longtemps indécises. Les tombeaux des hauts fonctionnaires, dus à la générosité du pharaon, qui donnait ainsi une dernière marque d'estime à un serviteur dévoué, sont généralement traités avec le plus grand soin et d'une régularité irréprochable dans toutes leurs parties. Il n'en est pas toujours ainsi pour les sépulcres que des fonctionnaires d'ordre inférieur achetaient, tout faits, à des industriels établis dans les Memnonia, et qui, de même que les marbriers fixés aux abords de nos modernes nécropoles, vivaient de ce genre d'industrie. Mais si ces tombeaux préparés pour des inconnus présentent parfois quelques imperfections, elles sont généralement rachetées par l'intérêt qu'offrent les peintures qui les décorent et le soin avec lequel elles sont exécutées.

Tel est le monument que je présente à mes lecteurs.

Creusé dans la chaîne libyque au sommet d'un mamelon du Cheik-abd-el-Gournah, cet hypogée regarde l'orient. Il appartenait à un scribe du nom de Nakht (Fort), attaché au temple d'Ammon en qualité de Ounnout, c'est-à-dire d'homme de l'heure de ceux qui servent Ammon, fonction difficile à déterminer, mais dans laquelle on ne serait pas éloigné de recon-

[Translation.]

THE TOMB OF A THEBAN ASTROLOGER OF THE EIGHTEENTH DYNASTY

The study of the Egyptian tombs is of the highest interest, in that it reveals to us, down to its most minute details, the life of the first inhabitants of the valley of the Nile. The subjects which are developed on the walls of these monuments sometimes enable us to solve historical problems which have long remained obscure. The tombs of the high officials, due to the generosity of the Pharaoh who thus paid a last mark of esteem to a devoted servant, were generally erected with the greatest care and with irreproachable regularity in all their parts. This does not always hold in the case of the tombs of officials of lower rank, who used to buy their ready-made from manufac-

turers who had settled within the Memnonia, and, like the monumental masons who carry on their business near our modern cemeteries, made their living by this industry. But if these tombs prepared for unknown tenants sometimes present certain imperfections, they are generally redeemed by the interest offered by the paintings that decorate them and the care with which the latter are executed.

Such is the monument which I present to my readers.

Dug in the Libyan chain, on the top of a mamelon of the Cheik-abd-el-Gournah, this hypogeum faces the east. It belonged to a scribe of the name of Nakht (*strong*), attached to the Temple of Ammon as an Ounnout, that is to say, "a man of the hour of those who serve Ammon," a function difficult to determine, but one in which it would not be hard to recognise an astrologer. As to its date,

naitre un astrologue. Quant à sa date, bien que nul cartouche ne puisse, ici, nous la révéler, on peut approximativement l'établir à l'aide du martelage systématique du nom d'Ammon, partout où il était reproduit, et qui fournit un critérium certain, permettant d'en faire remonter l'origine à la première moitié de la XVIII^e dynastie et antérieurement à Amenhotep IV, c'est-à-dire à environ 1700 ans avant Jésus-Christ (près de trois siècles avant Moïse).

Ce sépulchre se compose de deux salles [fig. 1], dont l'une, celle du fond, ne possède qu'une niche destinée à recevoir la statue du défunt; c'est aussi dans cette pièce que se trouve le

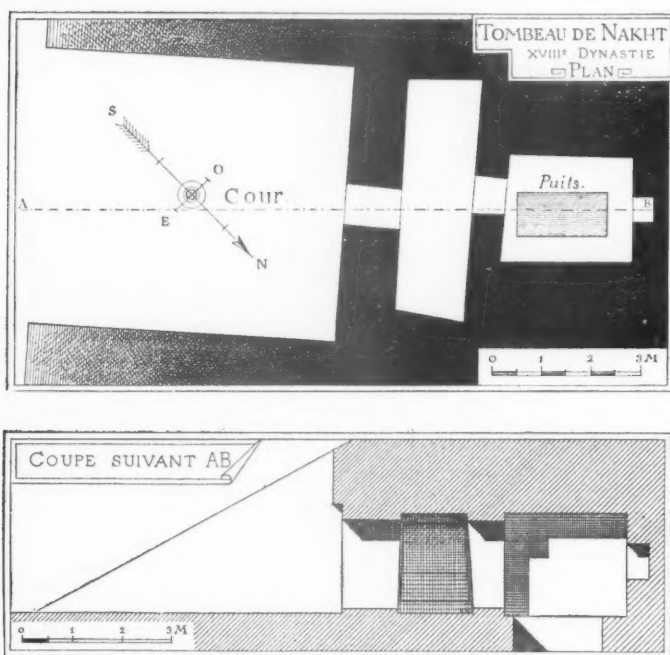


FIG. 1.

F. Hippolyte-Boussac del.

rendre compte de ses procédés; les traits de couleur rouge, indiquant la mise au carreau, y sont encore apparents. Comme dans tous les tombeaux de simples particuliers, ici les figures n'ont point ce caractère hiératique que l'on retrouve sur les parois des temples et des syringes

puits conduisant au caveau dans lequel était déposée la momie de Nakht et celle de sa femme. Quant à la première salle, objet principal de cette étude, elle présente la forme d'un rectangle très allongé. C'est là qu'à des époques déterminées, se réunissaient les parents et les amis du défunt pour les veillées funèbres, la célébration de certains anniversaires; c'est là aussi qu'avaient lieu les inféries, les repas silicernes. Les parois de cette salle sont ornées de peintures qui, malgré une existence de près de quatre mille ans, ont encore conservé tout l'éclat, toute la fraîcheur des premiers jours. La plupart d'entre elles, laissées inachevées par l'artiste thébain, permettent de nous

although no cartouche here can reveal it to us, we can fix it approximately by the systematic hammering of the name of Ammon wherever it was reproduced, which furnishes a sure criterion, allowing us to trace the origin to the first half of the Eighteenth Dynasty, before Amenhotep IV., that is to say to about 1700 B.C. (almost three centuries before Moses).

This sepulchre consists of two chambers [fig. 1], of which the inner one possesses only a niche for the statue of the deceased; here also is the shaft leading to the cave in which were laid the mummy of Nakht and that of his wife. As to the outer chamber, the principal object of this sketch, it presents the form of a very long rectangle. Here, at definite periods, the relations and friends of the deceased gathered together for the dead watches and the celebration of certain anniversaries; here, also, took place

the *inferie*, sacrificial banquets in honour of the dead. The sides of this chamber are ornamented with paintings, which, in spite of an existence of nearly 4,000 years, have kept the glow and freshness of their first days. The majority of them, left unfinished by the Theban artist, give us an insight into his processes: streaks of red, indicating the division into squares, are still discernible. As in all tombs of ordinary private individuals, the faces here have not that hieratic character which is found on the walls of temples and royal tombs; it is a freer, more familiar art, much less known. All proportion kept, it is to religious or symbolical art what the little statuettes of Tanagra are to the great conceptions of Greek sculpture. The animals especially are treated with a perfection which one may deny to have ever been surpassed. We shall examine successively the various scenes which these pictures reproduce.

royales ; c'est un art plus libre, plus familier, beaucoup moins connu. Toutes proportions gardées, il est à l'art religieux ou symbolique ce que les figurines de Tanagra sont aux grandes conceptions de la sculpture grecque. Les animaux surtout y sont traités avec une perfection qui, peut-on affirmer, jamais ne fut dépassée. Nous allons examiner successivement les différentes scènes que ces peintures reproduisent.

Chacune des grandes parois, celle de l'est et celle de l'ouest, est divisée en deux panneaux, de grandeur à peu près égale, par la porte d'entrée et une porte intérieure. Comme il n'est pas indifférent de commencer l'examen plutôt d'un côté que d'un autre, nous allons examiner d'abord la partie méridionale de la paroi sud-est. Elle nous montre en plusieurs registres superposés diverses scènes relatives à la culture des céréales. Dans la partie inférieure s'étend la plaine de l'Egypte, traversée par un chemin ombragé d'arbres aux multiples essences, et qui, vers le centre de la composition, enserme un lac dont la nappe est ridée de légers frissons. Disséminés çà et là au milieu des champs, des ouvriers sont en train de vaquer aux travaux agricoles [*vide* vignette, p. 53]. Celui-ci arrache les mauvaises herbes qui, de toutes parts, poussent à profusion, celui-là abat un arbre. Plus loin deux individus sont en train de piocher la terre, tandis que d'autres procèdent à l'ensemencement du blé et du lin. Ici deux ouvriers armés de maillets brisent les mottes de terre, et là un de leurs camarades vient étancher sa soif à une outre suspendue aux branches d'un grand arbre. Voici deux laboureurs conduisant chacun son attelage : l'un, jeune et vigoureux, sans le moindre effort dirige sa charrue ; l'autre, un vieil esclave, sans doute, s'appuie sur le soc et semble avoir quelque peine à faire sa besogne. Enfin à l'extrémité droite de la composition Nakht, assis sous un kiosque, surveille ses serviteurs. Immédiatement au-dessus du labourage des moissonneurs fauchent le blé et des femmes vêtues de blanc récoltent le lin. Enfin le vannage et le mesurage du blé occupent le registre supérieur. Ici comme dans le bas Nakht, assis sous un kiosque, un bâton à la main, surveille ses domaines.

Par ces images les Egyptiens croyaient assurer la nourriture du double qui, du fond de la tombe, venait faire de fréquentes apparitions dans le monde des vivants ; une ombre se nourrissait d'une ombre. Mais les gâteaux de froment ne constituaient qu'une faible partie de cette nourriture ; des viandes succulentes, des vins capiteux, des parfums odoriférants, etc., devaient aussi être déposés sur l'autel pour assurer l'existence des mânes et leur concilier les dieux. Les scènes figurées sur les autres parois vont nous montrer comment on complétait cette nourriture divine exigée par les rites.

A de rares exceptions près, les vendanges, les scènes de chasse et de pêche sont généralement reproduites à droite de la porte intérieure. En deux registres superposés ces différents sujets sont peints, ici, à leur place respective. La pêche à la traîne occupe l'extré-

Each of the great walls, that of the east and that of the west, is divided into two panels of almost equal size by the entrance door and by an inner door. As it is not a matter of indifference whether we begin the examination on one side rather than on another, we shall examine first the southern part of the south-east wall. It shows us, in several superimposed compartments, various scenes relating to the cultivation of cereals. In the lower part stretches the plain of Egypt, across which runs a road shaded by trees of manifold essences, which road, towards the middle of the composition, encircles a lake whose surface shivers with faint ripples. Labourers, dotted here and there about the fields, are busy at their agricultural toil [*vide* headpiece, p. 53]. This one is tearing up the weeds which grow everywhere in profusion ; that one is felling a tree. Further away, two individuals are digging the soil, whilst others are in the act of sowing corn

and flax. Here two labourers, armed with mallets, are breaking up the clods of earth, and there one of their companions is quenching his thirst from a wine-skin hanging from the branches of a large tree. Two ploughmen are driving their teams : one, young and sturdy, guides his plough without the slightest effort ; the other, apparently an old slave, leans upon the ploughshare and seems to be accomplishing his task with difficulty. Finally, at the extreme right of the composition, Nakht, sitting under a kiosk, keeps an eye upon his servants. Immediately above the ploughing scene harvesters reap the corn, and women, clothed in white, gather in the flax. Last of all the winnowing and measuring out of the corn occupy the upper compartment. Here, as below, Nakht, sitting under a kiosk, with a stick in his hands, watches over his domains.

By means of these pictures the Egyptians thought they

mité droite de la frise inférieure. Plus loin un individu est en train de plumer les oiseaux aquatiques que l'on vient de prendre, tandis que, sous un hangar, un second personnage les sale et les accroche ensuite à une poutre d'où ils sont retirés pour être déposés dans les jarres placées non loin de là [fig. 2]. Au-dessus se développe la scène des vendanges. Les raisins, cueillis à une treille, sont jetés dans une cuve et foulés par six individus [fig. 3].

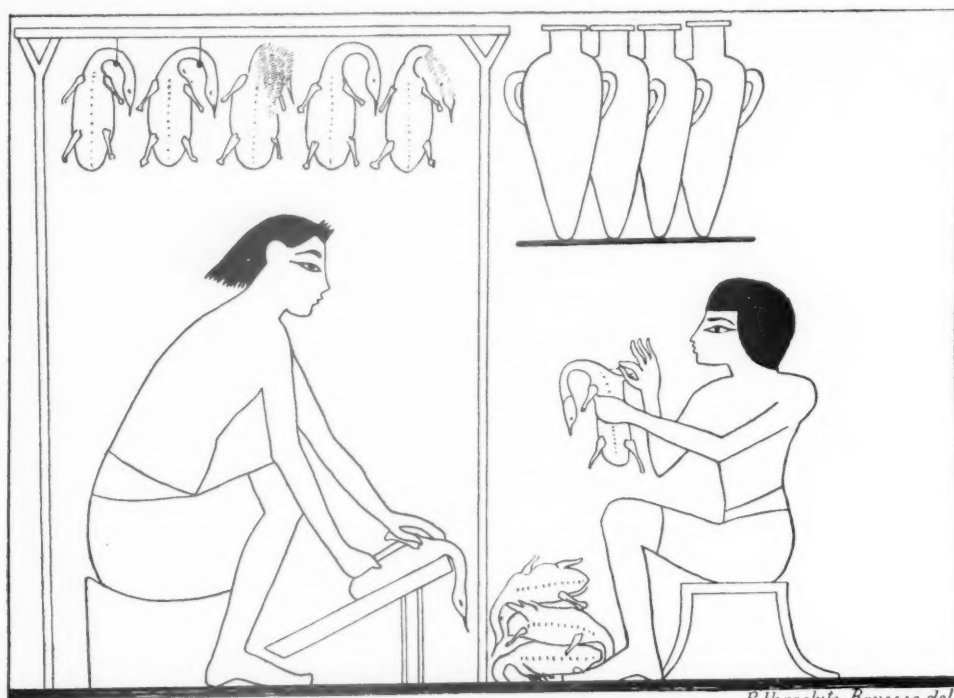


FIG. 2.

P Hippolyte-Boussac del

Après les travaux des champs les plaisirs de la chasse et de la pêche ; dans le registre du haut, en deux tableaux affrontés, Nakht, accompagné de sa famille et monté sur un canot, est au milieu des marais dans un fourré de lotus d'où s'échappent toutes sortes de volatiles, cailles, oies, canards, papillons, libellules, etc. A droite il harponne deux poissons laissés inachevés par l'artiste thébain.

could assure the sustenance of the Double, who, emerging from the depths of the tomb, made frequent appearances in the world of the living, a shade thus finding sustenance in a shadow. But the wheaten cakes composed only a small part of this food. Succulent meats, strong wines, savoury perfumes, &c. must also be placed upon the altar to provide means of subsistence for the Manes and to propitiate the gods towards them. The scenes depicted on the other walls will show us how they completed this divine food demanded by the rites.

With rare exceptions the vintages, the hunting and fishing scenes, are generally reproduced to the right of the inner door. In two superimposed compartments these different subjects are painted in their respective places.

Trawl-fishing occupies the right extremity of the lower frieze. Further on, an individual is in the act of plucking the waterfowl which have just been caught; whilst, under a shed, a second personage salts them and hangs them up afterwards to a beam, whence they are detached, so as to be put in the jars not far off [fig. 2]. Above is displayed the vintage scene. The grapes gathered from a trellis are thrown into a winepress and trodden by six individuals [fig. 3].

After the labours of the fields come the pleasures of hunting and fishing. In the upper compartment, in two adjoining panels, Nakht, accompanied by his family, is sitting in a small boat among the marshes in a clump of lotus, whence escape all kinds of winged things—quails,

La chasse au boumérang* fait face à la pêche. Sur le rivage des serviteurs assistent à ces divers exercices; l'un d'eux tient à la main le bâton et les sandales de son maître. "Il s'amuse, il se donne du bon temps, Nakht," nous dit l'inscription. Comme dans la scène des

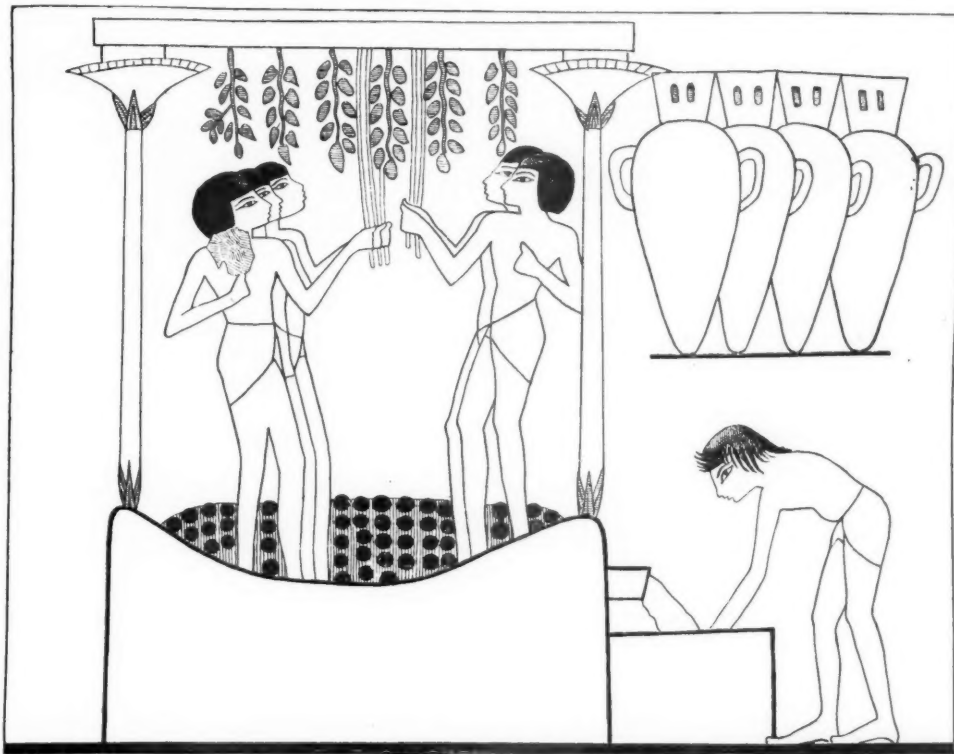


FIG. 3.

P. Hippolyte-Boussac del.

travaux agricoles Nakht est assis sous un kiosque, mais au lieu d'être seul il a, assise à ses côtés, "sa sœur chérie, dame de sa maison," qui est également son épouse.† Cette dame est chanteuse d'Ammon et répond au nom de Taoui. Des serviteurs apportent aux deux époux le produit de la chasse et de la pêche.

Nakht est allé voir les lieux où sont ses pères, mais sa mémoire est chère à tous les siens, car ses parents et ses amis, réunis dans le sépulchre, viennent souvent y célébrer, en

* Cette chasse est encore de nos jours en usage en Australie.

† Les Egyptiens se mariaient entre frère et sœur.

geese, ducks, butterflies, dragon-flies, &c. To the right he is harpooning two fish, left unfinished by the Theban artist.

Hunting with the boomerang* faces the fishing. Servants watch these various exercises from the bank; one of them is holding his master's stick and sandals. "Nakht amuseth himself and taketh his pleasure," the inscription tells us. As in the field-work scene, Nakht is sitting under a kiosk, but instead of being alone he has

at his side "his beloved sister, the Lady of his House," who is also his wife.* This lady is a singer of Ammon, and answers to the name of Taoui. Servants bring the pair the produce of the chase and of the fishing.

Nakht has gone to visit the spots where his fathers are, but his memory is dear to all his folk, for his friends and relations, gathered together in the tomb, often celebrate there,

* This mode of sport is practised to-day in Australia.

* Marriage between brother and sister was common among the Egyptians.

son honneur, quelque fête commémorative et faire les agapes funéraires. Telle est la scène qui occupe la paroi à gauche de la porte intérieure. Une partie de cette composition a, malheureusement, été détruite, et ce qui reste fait vivement regretter la perte de ce qui a disparu.



FIG. 4.

F. Hippolyte-Boussac del.

Dans le bas de la composition, à droite (du spectateur), Nakht et sa compagne, assis côte à côte, assistent aux agapes célébrées en leur honneur. Un chat, commensal de la dame

in his honour, some commemorative festival and hold the funeral banquet. Such is the scene which occupies the wall to the left of the inner door. Unfortunately a portion

of this composition has been destroyed, and what remains awakens keen regret for the loss of what has disappeared.

At the bottom of the composition, to the right (of the

Taoui, placé près du siège de sa maîtresse, se régale d'un poisson qu'on lui a abandonné. Debout en avant des défunts, leur fils Amenemap présente à ses parents des fleurs et des fruits. Derrière celui-ci se développe la salle du festin, où des convives, hommes et femmes, sont assis les uns sur des sièges, les autres sur des nattes. Des musiciens et des danseuses égayent cette fête. Accroupi sur ses genoux, un aveugle tire de sa harpe des sons harmonieux. Derrière lui des jeunes femmes, dont la noire chevelure s'épand sur leurs épaules en des flots abondants, sont couronnées de fleurs, et, assises sur des nattes, devisent entre elles. Revêtues de tuniques transparentes lamées de flammes de safran, elles ont les oreilles ornées de larges anneaux d'or, et à leurs gorges scintillent des colliers enrichis de grenats, d'émeraudes et de lapis-lazuli. Au registre supérieur des almées, sommairement vêtues, jouent de la double flûte, de la harpe et du nebel [fig. 4].

Toute cette composition est charmante de couleur, et le caractère hiératique que l'on trouve ordinairement sur les œuvres de l'art égyptien est ici fort peu apparent. Les deux parois extrêmes nous montrent, celle du midi, une stèle en simili granit, au devant de laquelle sont déposées toutes sortes d'offrandes, gâteaux de froment, raisins, grenades, quartiers de veau, rognons, côtelettes, etc. La dame des sycomores, Hathor, apporte aussi ses offrandes; elle est suivie de nombreux serviteurs qui d'abord s'échelonnant de chaque côté de la stèle se développent ensuite sur la paroi opposée. Enfin des deux côtés de la porte d'entrée des serviteurs égorgent une victime que Nakht et son épouse offrent en holocauste à la divinité.

Tel est ce tombeau dont les peintures sont si bien conservées qu'on pourrait les croire l'œuvre d'un artiste contemporain. Des monuments de ce genre existent en grand nombre dans l'antique nécropole thébaine, et la plupart d'entre eux ont odieusement été saccagés par des mains barbares. Aussi y aurait-il grand mérite de reproduire soigneusement tous ces souvenirs du passé, qui, réunis et méthodiquement classés, formeraient un merveilleux recueil où l'on retrouverait non seulement tous les genres de peintures cultivés par les anciens Egyptiens, mais encore les détails les plus précieux et les plus exacts sur leur manière de vivre.

spectator), Nakht and his companion, sitting side by side, are present at the banquet held in their honour. A cat, the house companion of the Lady Taoui, placed near his mistress's seat, is feasting off a fish that has been thrown him. Standing in front of the deceased, their son Amenemap offers flowers and fruit to his parents. Behind him extends the banqueting hall, where men and women guests are sitting, some on chairs and others on mats. Musicians and dancers add gaiety to the feast. Squatting on his knees a blind man draws melodious strains from his harp. Behind him young women, whose black hair is scattered in profusion over their shoulders, are crowned with flowers, and, sitting on mats, converse among themselves. They are clad in transparent tunics embroidered with saffron flames; their ears are adorned with broad gold rings, and at their throats gleam necklaces enriched with garnets, emeralds, and lapis lazuli. In the upper compartment Indian dancing girls, summarily clad, play on the flute, the harp, and the nebel [fig. 4].

The whole of this composition is charming in colour, and the hieratic character usually found in works of Egyptian art is here very little apparent. Of the two

extreme walls that of the south shows a granite stela, before which are laid all kinds of offerings—wheat cakes, grapes, pomegranates, quarters of veal, kidneys, cutlets, &c. The Lady of the Sycamores, Hathor, also brings her offerings: she is followed by numerous servants, who at first are lined on either side of the stela, and then are continued upon the opposite wall. Lastly, on both sides of the entrance door, servants are slaughtering a victim, which Nakht and his wife offer as a holocaust to the deity.

Such is this tomb whose paintings are still so well preserved that one might take them to be the work of a contemporary artist. Monuments of this kind exist in great numbers in the old Theban necropolis, and the majority of them have been hatefully despoiled by barbarian hands. So there would be great merit in carefully reproducing all these mementoes of the past, which, collected and methodically classified, would form a marvellous collection, in which would be found, not only every kind of painting cultivated by the ancient Egyptians, but also the most precious and the most minute details of their manner of life.



9, CONDUIT STREET, LONDON, W., 4th December 1897.

CHRONICLE.

THE NOVEMBER EXAMINATIONS.

The results of the November Examinations, as duly announced at the Meeting of Monday, the 29th ult., are as follows:—

The Preliminary: Newly registered Probationers.

The Preliminary Examination, to qualify for registration as *Probationer R.I.B.A.*, was held in London, Manchester, and Bristol on the 9th and 10th ult. Of the 118 candidates admitted, claims for exemption by thirty-three were allowed, and the remaining eighty examined, with the following results:—

	Number examined	Passed	Relegated
London . . .	53	34	19
Manchester . .	21	12	9
Bristol . . .	6	1	5
	80	47	33

The names of the successful candidates, including those exempted—making a total of eighty—have been entered on the Register of Probationers, and are here printed in alphabetical order:—

ARCHER: Edward Percy; Fairlea, Etchingham Park, Church End, Finchley, N. [Master: Mr. E. A. E. Woodrow *].
 BAX: Edwin George Goodson; 45, Rosenthal Road, Catford, S.E. [Master: Mr. Thomas Dinwiddy].
 BINNEY: William Leaycraft; 118, Adelaide Road, Hampstead, N.W. [Masters: Messrs. Read * & MacDonald *].
 BIRCHENALL: Charles Alfred; Thorn Bank, Guest Road, Prestwich [Masters: Messrs. Maxwell & Tuke].
 BLANC: Louis; 17, Strathearn Place, Edinburgh [Master: Mr. Hippolyte J. Blanc, R.S.A.].
 BODEN: Leonard; Beech Mount, Langham Road, Bowdon, Cheshire [Masters: Messrs. Mills & Murgatroyd].
 BRIGGS: George Hamilton; c/o P. H. Adams, Esq., 65, Leadenhall Street, E.C. [Master: Mr. P. H. Adams *].
 CALDWELL: Robert Whitelaw; 83, Finlay Drive, Glasgow [Masters: Messrs. Clarke & Bell].
 CHENNELLS: Ernest William; 31, High Street, Hemel Hempstead, Herts [Master: Mr. W. H. Syme *].
 CLARKE: John Daniel; 81, Lancaster Road, Kensington Park, W. [Master: Mr. Arthur Green *].
 COOKE-YARBOROUGH: Arthur Capel; South-Eastern College, Ramsgate.

CRAIG: William; 8, Stockwell Park Walk, Brixton, S.W. [Master: Mr. G. T. Hine *].
 CUBITT: Horace William; Langham House, Gordon Road, Lowestoft [Master: Mr. J. W. Cockrill *].
 DADD: Charles John Thomas; 13, Spring Gardens, S.W. [Master: Professor Banister Fletcher *].
 DEAN: William Stanley; Hughenden, Westby Road, Boscombe, Bournemouth [Master: Mr. G. A. Bligh Livesay *].
 EDDISON: Henry; c/o H. G. Gamble, Esq., Bank Street, Lincoln [Master: Mr. Henry G. Gamble *].
 ELMS: Edward Furness Marson; 16, Buckingham Palace Road, S.W. [Master: Mr. H. O. Cresswell *].
 EWING: James; 70, Church Street, Berwick-on-Tweed [Masters: Messrs. James Stevenson & Son].
 FERRIER: Claude Waterlow; 34, Cavendish Square, W. [Master: Mr. Aston Webb *].
 FORSTER: Frank Jamieson; Harewood Hill, Darlington [Master: Mr. W. J. Moscrop *].
 GOLDSMITH: Henry Liversage; 16, Bellevue Road, New Southgate [Master: Mr. F. H. Jones].
 GOOD: David; 91, Highbury Hill, N. [Master: Mr. Ernest Flint *].
 GREIG: Baxter; 90, Shenley Road, Camberwell, S.E. [Master: Mr. G. E. Nield *].
 GRUNDY: Charles Frederick; 25, Baxter Gate, Loughborough, Leicestershire [Master: Mr. G. H. Barrow-cliff].
 GULLEY: Frederick Elford; 4, Palmer Street, Wrexham, N. Wales [Master: Mr. M. J. Gummow *].
 HEATON: Charles Herbert; 54, Earl Street, Wigan, Lancashire [Masters: Messrs. Heaton & Ralph].
 HENDERSON: Harold Edgar; 12, Ridge Road, Upper Armley, Leeds [Master: Francis W. Bedford *].
 HEWITT: Stanley Goodison; 82, Shrewsbury Road, Birkenhead [University College, Liverpool].
 HILL: Thomas Jackson; 229, Oldham Road, Longsight, near Oldham [Master: Mr. Fred. W. Dixon].
 HOLSTEAD: Abraham; 46, Hopwood Lane, Halifax, Yorks [Masters: Messrs. Petty & Ives].
 HORTH: Frederic John; The Shawberries, Shustoke, near Birmingham [Masters: Messrs. Ingall & Son].
 HOSKING: Reginald; Wyndham Place, Bryanston Square, W. [Master: Mr. Henry Hall *].
 JACQUES: Thomas Arnold; 29, Dartmouth Park Avenue, N.W. [Polytechnic School of Architecture].
 JONES: Robert Cadwaladr; 1, Chapel Street, Menai Bridge [Master: Mr. Joseph Owen].
 KNIGHT: Frederick William; Darley, Cottenham Park, Wimbledon [Master: Mr. Frederick G. Knight *].
 LING: Frederick Allen; The Homestead, Wimborne Road, Winton, Bournemouth [Masters: Messrs. Jennings & Goater].
 LONGHURST: Albert Henry; The Woodlands, Barnes Common, S.W. [Master: Mr. Charles E. Sayer *].
 MACKENZIE: John Arthur Kerr; Waterford, Exeter Road, Bournemouth [Masters: Messrs. Jennings & Goater].
 MARTIN: William; c/o Messrs. Parker & Unwin, The Quadrant, Buxton [Masters: Messrs. Parker & Unwin].
 MELDRUM: Alexander Robert; 92, Bonnymuir Place, Aberdeen [Master: Mr. A. H. L. Mackinnon *].
 MORLEY: Frederick Louis; Lowell House, Herbert Avenue, Merrion, co. Dublin [Master: Mr. G. P. Sheridan *].
 MOSS: Charles Percy; 58, Ashley Road, Crouch Hill, N. [Master: Mr. Henry Blackburn *].
 NATHAN: Percy Phineas; 53, St. Charles Square, Notting Hill, W. [Masters: Messrs. Francis Chambers * & Son *].
 NAYLOR: James John Sydney; 68, Hereford Road, W. [Master: Mr. E. W. Jennings *].

NEW: Claude Edward; 62, George Street, Portman Square, W. [Masters: Messrs. New & Son*].
 NORMAN: Geoffrey; 21, Cadogan Square, W. [Master: Mr. F. W. Hunt*].
 ONIONS: George Harry; 34, Fisher Street, Great Bridge, Tipton, Staffs [Master: Mr. Alfred Long].
 PAGE: George Montague; 7, Dryden Street, Nottingham [Master: Mr. G. S. Doughty].
 PETCH: Joseph Herbert; Stepney Rise, Scarborough [Master: Mr. J. Caleb Petch].
 PROCTER: Paley; 14, Gray's Inn Square, W.C. [Masters: Messrs. Schultz & Troup*].
 REYNOLDS: Harry Martin; c/o Henry G. Gamble, Esq., Bank Street, Lincoln [Master: Mr. Henry G. Gamble*].
 RIDER: Frank Victor; 156, Lancaster Road, Notting Hill, W. [Polytechnic Architectural School].
 ROBERTS: Richard McMinnies; Rock Villas, Latchford, Warrington [Master: Mr. Wm. Owen*].
 ROLLO: Andrew; 6, Willowbank Crescent, Glasgow [Masters: Messrs. Malcolm Stark & Rowntree].
 ROTHWELL: Edwin; Brentwood, Walkden, near Bolton [Master: Mr. J. R. Earnshaw*].
 ROYDS: George Freeman; St. Mary Bourne, near Andover, Hants [Reading School].
 RUSSELL: George Leonard; 9, Morpeth Road, South Hackney, N.E. [Master: Mr. Edmund Woodthorpe*].
 SALISBURY: Arthur Henry; Limbrick Hall, Harpenden, Herts [Masters: Messrs. Burch & Forge*].
 SAMSON: Harold Overall; The Laurels, Taunton, Somerset [Master: Mr. C. H. Samson*].
 SEARLE: Norman Odell; 35, Macaulay Road, Clapham Common, S.W. [Manor House School].
 SHEPPARD: George Henry; 116, Pyle Street, Newport, I.W. [Master: Mr. E. A. Swane].
 SIMPSON: Hugh Dykes; Nursery Street, Kilmarnock [Master: Mr. Thomas Smellie].
 SMART: John Gordon; 13, Brunswick Street, Hillside, Edinburgh [Master: Mr. Hippolyte J. Blanc, R.S.A.].
 SMITH: Horace Frank; 13, Acramans Road, Southville, Bristol [Master: Mr. Geo. H. Oatley].
 STRATTON: Frank Edward; Quidhampton, Salisbury, Wilts [Master: Mr. A. C. Botham].
 STUBBS: Rowland; Fern Villa, Winsford, Cheshire [University College, Liverpool].
 STURDY: Philip; The Wick, Branksome Park, Bournemouth [Master: Mr. G. A. Bligh Livesay*].
 SWARBRICK: John; 11, Circular Road, Wittington, Manchester [Master: Mr. Joseph Swarbrick].
 TANNER: Albert Stringer; 29, Pelham Place, South Kensington, S.W. [Master: Mr. A. W. Tanner*].
 TEBBUTT: Horace; 29, Waldeck Avenue, Bedford [Masters: Messrs. C. E. Mallows & Grocock].
 THACKER: Alfred Dennis; Strathearne, Rushall Road, Walsall [Masters: Messrs. Bateman & Bateman*].
 TWIZELL: Robert Percy Sterling; 133, Cromwell Street, Newcastle-on-Tyne [Masters: Messrs. Hick & Charlewood*].
 WALKER: George; Clyde Villa, Barrow-in-Furness [Master: Mr. John Butler].
 WALKER: John Wilson; Hillside House, Portlethen, Aberdeen [Master: Mr. R. G. Wilson].
 WARWICK: Septimus; 98, Lancaster Road, North Kensington, W. [Master: Mr. Arthur Vernon].
 WILES: Ralph Cunningham; 30, Kew Road, Richmond, S.W. [Master: Mr. Frank J. Brewer*].
 WILSON: Charles Braithwaite; 5, Bank Field, Kendal [Master: Mr. John F. Curwen*].
 WILSON: Robert Gordon; 12, Belgrave Terrace, Aberdeen [Master: Mr. R. G. Wilson].
 WOOD: Joseph John; 27, Cardigan Road, Leeds [Yorkshire College].

WOODWARD: Charles; 13, Southampton Street, Strand, W.C. [Master: Mr. Wm. Woodward*].

The asterisk (*) denotes members of the Institute.

The Intermediate: Newly registered Students.

The Intermediate Examination, to qualify for registration as *Student R.I.B.A.*, was held in London, Manchester, and Bristol, on the 9th, 10th, 11th, and 12th ult. Sixty-four candidates were examined, with the following results:—

	Number examined	Passed	Relegated	Failed
London	54	29	24	1
Manchester	8	4	4	—
Bristol	2	2	—	—
	64	35	28	1

The successful candidates have been registered as *Students R.I.B.A.*, and their names, placed by the Board of Examiners in order of merit, here follow:—

ADSHEAD: Charles Thomas [Probationer]; 9, Poplar Grove, Stepping Hill, Stockport [Masters: Messrs. Woodhouse & Willoughby*].
 HAYWARD: George Whitehead [Probationer 1894]; 217, Upper Brook Street, Manchester [Masters: Messrs. Horton & Bridgford*].
 NOBBS: Percy Erskine, M.A. [Probationer 1897]; 4, Comely Bank, Edinburgh [Master: Mr. R. S. Lorimer*].
 BIRD: Lennox Godfrey [Probationer 1895]; Royal Marine Barracks, Chatham [Master: Mr. G. H. Fellowes Prynn*].
 MOULD: Stuart Mill [Probationer 1894]; 36, Salters Road, Gosforth, Newcastle-on-Tyne [Masters: Messrs. Badenoch & Bruce].
 MILLS: John Donald [Probationer 1892]; Marsbank, Tayport, Fifeshire, N.B. [Master: Mr. J. Murray Robertson*].
 HARDING: George Robinson Cuthbert [Probationer 1897]; Lindum, Beckenham, Kent [Master: Mr. Ernest R. Barrow*].
 GREEN: Leslie William [Probationer 1891], Sumpter-mead, Datchet, Bucks [Master: Mr. Arthur Green*].
 HAMP: Stanley Hinge [Probationer 1896]; Park House, Alpertown, Wembley [Master: Mr. T. E. Collett].
 KNIGHT: Edward Frost [Probationer 1896], North Bank, Oakleigh Park, N. [Master: Mr. George Baines*].
 GREGORY: Leolin Charles [Probationer 1895]; 29, Shaftesbury Road, Ravenscourt Park, W. [Master: Mr. A. B. Burnell*].
 GIBBINS: Arthur Everett [Probationer 1895]; 3, Vernon Terrace, Brighton [Master: Mr. J. G. Gibbins*].
 MAC GIBBON: Alfred Lightly [Probationer 1895]; 23, Learmouth Terrace, Edinburgh [Master: Dr. R. Rowand Anderson].
 FRANCK: James Ernest [Probationer 1893]; 44, Boundary Road, St. John's Wood, N.W. [Master: Mr. R. E. Tyler*].
 BENSTED: Sidney Walter [Probationer 1893]; 11, Wakehurst Road, Wandsworth Common, S.W. [Master: Mr. C. Stanley Peach*].
 HONAN: Matthew [Probationer 1896]; 31, James Street, Liverpool [Masters: Messrs. Grayson & Ould].
 BOTTERILL: Austin Barugh [Probationer 1895]; Kew Lodge, Kew Road, Weston-super-Mare [Masters: Messrs. Henry Crisp & Oatley].
 RODWAY: Ernest George [Probationer 1895]; 6, St. John's Terrace, Weston-super-Mare [Master: Mr. H. Dare Bryan].

NEWCOMBE: Charles Frederick [*Probationer* 1892]; Erismead, Gosforth, near Newcastle-upon-Tyne [*Master*: Mr. W. Lister Newcombe*].
 BENNETT: Charles Herbert [*Probationer* 1895]; Foden Bank, Macclesfield [*Master*: Mr. C. H. Heathcote*].
 ALLEN: Francis Henry [*Probationer* 1895]; 28, High Street, Kettering [*Master*: Mr. Ingman].
 ANSON: Henry Percy Richmond [*Probationer* 1895]; 159, Denmark Hill, S.E. [*Master*: Mr. Langton Cole*].
 BATES: Ernest [*Probationer* 1894]; Oak Lodge, Thornton Heath [*Masters*: Messrs. Gordon, Lowther,* & Gunton].
 BIGGS: Alfred Ernest [*Probationer* 1895]; 56, Penshurst Road, South Hackney, N.E. [*Master*: Mr. Rowland Plumble*].
 BISHOP: John Percival [*Probationer* 1896]; Kline House, London Road, Forest Hill, S.E. [*Master*: Mr. W. W. Gwyntner].
 BOURNE: Walter Hargreaves [*Probationer* 1895]; 29, West End Lane, West Hampstead, N.W. [*Master*: Mr. Edwin J. Stubbs].
 COPLAND: George Donaldson [*Probationer* 1895]; 20, Sandford Place, Glasgow [*Masters*: Messrs. Clarke & Bell].
 GILFORD: Hubert Ernest [*Probationer* 1895]; Edwalton Lodge, Edwalton, near Nottingham [*Master*: Mr. A. W. Brewill*].
 JARDINE: Henry [*Probationer* 1895]; 63, King's Road, Queen's Road, Peckham, S.E. [*Master*: Mr. Thomas Blashill*].
 MERILLE DE COLLEVILLE: Henry Louis Emile [*Probationer* 1895]; 24, Chatham Place, Brighton [*Masters*: Messrs. Anthony & Dixon].
 ROE: Arthur Henry [*Probationer* 1893]; 55, Dalrymple Road, Brockley, S.E. [*Master*: Mr. Lewis Angell*].
 SALMON: Nathan Thomas [*Probationer* 1895]; Castle Street, Reading [*Master*: Mr. Galt Millar].
 SMITH: Frederick John Osborne [*Probationer* 1893]; 7, Old Queen Street, Westminster, S.W. [*Master*: Mr. J. Osborne Smith*].
 SPALDING: Reginald Henry [*Probationer* 1894]; 3, Lyndhurst Road, Hampstead, N.W. [*Masters*: Messrs. Spalding* & Cross*].
 TORRANCE: Andrew Mitchell, jun. [*Probationer* 1893]; Clydesdale, 16, Highbury Quadrant, N. [*Master*: Mr. Wm. Young*].

The Final: Qualifying for Candidature as Associate.

The Final and Special Examination, held in London only, began on the 19th ult., and closed on the 25th. Of the twenty candidates admitted, nine passed, and the remaining eleven were relegated to their studies. The names of those passed, and who, subject to Section 8 of the Charter, have become qualified for candidature as Associate, are as follows:—

DUTHOIT: John Frederick [*Probationer* 1892, *Student* 1895]; 6, Claremont Place, Dover.
 HOBSON: Laurence [*Probationer* 1893, *Student* 1896]; 14, Hale Road, Liscard, Cheshire [*Arthur Cates Prizeman*].
 HULBERT: William Charles; 10, Stanley Road, Wimbledon.
 McCULLOCH: William; 1, St. Mary Street, St. Andrews, Fife, N.B.
 MAYNARD: Dudley Christopher [*Probationer* 1893, *Student* 1895]; 31, Westbourne Park Road, W.
 MORTON: Ralph Henry [*Probationer* 1890, *Student* 1894]; 2, Whitehall Court, S.W.
 ORMROD: John [*Probationer* 1891, *Student* 1895]; 29, Royal Avenue, Chelsea.

PEARSON: Harry John [*Probationer* 1895, *Student* 1897]; 49, Parliament Street, S.W.
 SHEPHERD: Herbert [*Probationer* 1892, *Student* 1894]; 19, Larkfield Road, Richmond, Surrey.

The asterisk (*) denotes members of the Institute.

The following table shows the number of failures among the relegated candidates in each subject of the Final Examination:—

I. Design	9
II. History of Architecture	6
III. Mouldings, Features, &c.	6
IV. Principles of Hygiene	3
V. Materials	2
VI. Strength of Materials	1
VII. Construction	2
VIII. Specifications	1
IX. Professional Practice	1

The Examinations: Revised Scheme.

The subjoined Report, drawn up by the Board of Examiners, has been approved and adopted by the Council, and regulations framed in accordance with its recommendations are to come into operation for the Examinations in June 1898.

Report to the Council on the General Arrangements of the Examinations.

The Board, having carefully considered the general arrangements of the Examinations, beg leave to report that they believe some simplification is desirable, particularly such a rearrangement of subjects as will prevent their overlapping; and a modification in the work required as "Testimonies of Study."

They consider generally that the Preliminary Examination (No. 1) should be treated as the test of all subjects coming under the head of General Education; the Intermediate (No. 2) the test of Elementary Architectural Studies; and the Final (No. 3) as that of advanced architectural studies and of Practical Knowledge.

It is thought undesirable to retain the separation into Art and Science Sections.

The Board propose that the Outlines of the History of Mediæval and Renaissance Architecture in Europe should be included in the Intermediate Examination; Sketches in Perspective of Details and Ornament should also be required.

In the Final Examination (No. 3) it is proposed that the Candidate's attention should be concentrated on those subjects which will claim his care in the practice of architecture.

The Board consider that more weight should be given to the Testimonies of Study, which have hitherto been merely regarded as qualifying or disqualifying for admission to the Examination.

The following schemes are recommended:—

That those testimonies which, after examination by the Board, are marked "excellent" should receive an Honorary Mention; and further:

That a certain number of marks (not exceeding 10) should be allocated to each Sheet

of Testimonies, and allotted at the Oral Examination by the Examiners taking the several subjects.

Suggested Testimonies of Study.

In a good course of training a large number of these studies will necessarily be prepared. Those specified below will be looked upon as the smallest number which may be selected and submitted, in order to enable the Examiners to ascertain the fitness of Probationer or Students for admission to the Examinations.

INTERMEDIATE EXAMINATION.

1 and 2. Two sheets, giving examples (one on each sheet) of any two of the Orders of Architecture here named—the Doric, the Ionic, or the Corinthian—drawn in outline with the ornament and enrichments filled in; each sheet to contain two columns of one Order with entablature complete, drawn to scale (the columns being not less than 10 inches high on the paper) and details to three times the scale of the columns.

3. One sheet of details of Classic Ornament from the round, in outline.

4 and 5. Two sheets, containing examples (one on each sheet) of any two of the Periods here named—the Early English, the Decorated, or the Perpendicular—such as a door, a window, or an arcade, in plan, elevation, and section, with details of Mouldings and Ornament relating to such examples.

6. One sheet of Mediæval Ornament—freehand drawing from the round, in outline.

A concise description, giving such particulars as may be accessible, of the building or buildings from which the several subjects are taken, with the dates of erection and other details, illustrated by sketches of plan, general elevation, &c., and written on foolscap paper, on one side only—the whole to be the work of the Probationer's own hand.

* * It is desirable that some of the drawings submitted should be from actual measurement by the Probationer.

Probationers R.I.B.A. who are Architectural Students of the Royal Academy are permitted, in lieu of the Testimonies of Study Nos. 1 to 6 above specified, to submit for the approval of the Board of Examiners their work done in and for the Royal Academy School, provided that the drawings so submitted comprise studies applicable to paragraphs Nos. 4 and 5, whether prepared for the Royal Academy or otherwise.

7. One sheet containing diagram of timber-framed Roof Truss, not less than 30 feet span, with the nature of the strain on the several parts marked thereon, the ironwork and the junctions of the timbers drawn to a scale of one inch and a half to the foot in isometrical projection and dissociated.

8. One sheet showing the construction of Floors—Framed timber, combined iron and timber, and fire-resisting materials, suitable for a room 30 ft. x 20 ft., drawn to a scale of $\frac{1}{2}$ inch to the foot.

9. One sheet of details of Joiner's Work in doors, windows, and fittings, shown in plan, elevation, and section, to a scale of one inch to the foot; with details, to a large scale, of mouldings and framing.

* * Each of the nine sheets must be carefully finished as a complete work. They must be delivered flat, in a portfolio 30 inches x 22 inches, which can be purchased for about 4s.

FINAL EXAMINATION.

1. A study of Ornament from the round, shaded.

2. A design for a Building of moderate dimensions, such as a detached villa, parsonage, school, local institution, or cottage hospital, to be fully drawn out as working drawings to a scale of not less than one-eighth of an inch to the foot, in plans, elevations, and sections,

duly figured and showing construction, drainage, with details of the construction and ornament, and a perspective view.

3. Drawings of some Historical Building, or part of a Building, made from actual measurement, with the jointing of the masonry, &c., correctly shown, and the construction; the whole in plan, elevation, and section, carefully figured, with details at least one quarter full size. The original sketches measured and plotted on the spot are to be appended.

4. One sheet of Diagrams of Constructive Masonry or Brickwork, such as arches or groined vaults, with the projection of arch and vault stones.

5. One sheet of Diagrams of a roof truss of iron or steel, not less than 40 feet span, with details to a large scale, with all the calculations for strength at the various parts fully worked out and appended thereto.

The Candidates must also submit sketch-books or other evidences of study of buildings and of travel, and satisfactory evidence, with sketches, of having followed the carrying out of building works, and notes of the progress and conduct of such works.

Revised Forms and Programmes are in preparation, and may shortly be had on application to the Secretary.

THE LONDON BUILDING ACT.

Proposed Amendments.

The Report of the Building Act Committee of the London County Council, showing the urgent need for an Act to amend the London Building Act 1894, is as follows:—

1. Recent decisions of the High Court as to the construction to be put upon certain sections of the London Building Act are such as appear to us to render the working of the Act as it stands very difficult; and we have also been informed that the Housing of the Working Classes Committee has, owing to a defect in the Act, found it necessary, when land belonging to the Council is leased for the erection thereon of artisans' dwellings, to insert in the leases a provision to insure that such dwellings abutting upon narrow streets shall not be of undue height.

One of the decisions above referred to, both of which were given so recently as 2nd November, materially affects the proceedings relative to dangerous structures. [Section 188 (1) is here set out.]

One of the magistrates recently dismissed certain summonses taken out by the Council, as he held (a) that all dangerous structure summonses must be served under the Summary Jurisdiction Acts, and (b) that even if they could be served by affixing a copy upon premises when unoccupied (which course was taken by the police authorities when the law relative to dangerous structures was enforced by them, and has been continued by the late Metropolitan Board of Works and by the Council), that was not a sufficient service unless the Council had after some reasonable inquiry failed to find the owner. The question being of great importance, affecting many cases in the course of each year, the Council on 19th October on our recommendation directed that application should be made to the High Court for a mandamus upon the magistrate to hear the summonses with which he had declined to proceed. The case came before the High Court on 2nd November, when, after hearing counsel on both sides, the Court decided that the first point taken by the magistrate was bad, and that if the Council made reasonable inquiry, and could not discover the owner, a summons could be served under section 188; but discharged the rule for a mandamus on the technical ground that no evidence was given before the magistrate in the case referred to that

such inquiry had been made. The Court said that such inquiry need not be a prolonged or expensive inquiry, but such reasonable inquiry as any constable knew how to make on the spot in a few minutes. The decision will put most serious difficulty in the way of proceedings. It appears to us that, having regard to the decision as to who is "owner" for the purpose of these proceedings, it must involve a search in each case for *documentary* proof of the ownership of premises before a summons can be taken out, as without evidence of ownership, to get which evidence must in many cases be almost impossible, the case might be dismissed with costs against the Council. We consider it essential that structures certified to be in a dangerous state should be dealt with with the utmost promptitude, which will be impossible if such inquiries, which have never hitherto been required, have to be made. In illustration of the necessity for swift action we may state that only a very short time since, owing to a magistrate having refused to adjudicate upon a case in consequence of the point raised as to the service of the summons, two men narrowly escaped being crushed through the falling down of a part of a structure certified to be dangerous; and moreover, since the decision of the High Court, other summonses similarly served have been dismissed. We are therefore of opinion that the section referred to should be so amended as to make it absolutely clear, as the Building Act of 1855 made it clear, that in *all* cases of dangerous structures all documents in proceedings may always be served on some person on the premises to which such documents relate, or if no person be found on the premises by affixing such documents thereto.

In another case the magistrate dismissed a summons taken out with regard to a building erected on the south side of Moscow road with the boundary of the forecourt at less than the prescribed distance from the centre of the road; he taking the view that as the building itself was at the prescribed distance, no power to proceed was given by section 14 of the Act, which, in his opinion, merely applied to a *building or structure* erected within the prescribed distance. This and the preceding section 13 were, however, in our opinion clearly intended to insure that no part of any new building, nor of the forecourt boundary fence or wall in front thereof, should be at less than the prescribed distance from the centre of the road; and, on our recommendation, the Council on 18th May last directed that the matter should be submitted to the High Court by means of an appeal against the magistrate's decision. This case also came before the High Court on 2nd November, when the Council's appeal was dismissed, and the decision of the magistrate confirmed, and the Council was ordered to pay the respondent's taxed costs. The Court expressed the opinion that the intention of the sections was obvious, but that as section 14 stood the intention was not expressed, and that it was a slip which Parliament should be asked to amend. We consider that it is very desirable that the Council should at once endeavour to obtain the amendment required, in order that it may be made clear that no part of any new building shall be erected with its forecourt boundary fence or wall at less than the prescribed distance from the centre of the road.

It is also desirable that sub-paragraphs (a) (d) and (e) of sub-section 3 of section 200, which section relates to offences against the Act, should be taken out of that sub-section and themselves be placed in a separate sub-section providing a penalty for the offences which these paragraphs (a) (d) and (e) deal with. Sub-section (3) as it now stands only provides for a penalty when an order of a magistrate is not complied with, and a question has been raised whether any procedure is provided in the Act for obtaining such an order. The matters are of great importance, one being as to the general line of buildings, and the other as to wooden and other structures. It is clear from reference to the previous Acts that these sub-sections have been

inadvertently misplaced, and should not have been included in the sub-section of which they now form part.

As regards the difficulty of the Housing, &c., Committee above referred to, we may point out that section 13 (5) contains a proviso that "no dwelling-house to be inhabited by persons of the working class shall, without the consent of the Council, be erected or re-erected within the prescribed distance to a height exceeding the distance of the front or nearest external wall of such building from the opposite side of the street;" and we think that the difficulty may be met by an amendment to make it clear that no working-class dwelling shall be erected within 20 feet from the centre of the street or way on which it abuts, which was obviously intended, although the section does not set out the intention in express terms.

The Report concludes with the following recommendation:—

That the Parliamentary Committee be instructed to insert in one of the Council's bills for the next session of Parliament, clauses for the amendment of the London Building Act 1894, in the matters above specified, namely—(a) as to procedure with regard to dangerous structures; (b) as to boundary fences or walls within the prescribed distance from the centre of the street in front of buildings which are themselves set back; (c) as to getting an order from a magistrate in respect of certain offences under the Act, and provision of penalties; and (d) as to erection of working-class dwellings in narrow streets.

This Report has been adopted, and the London County Council have decided to apply for an amending Act early next Session.

The Institute and the Amendments: A Suggestion.

At the conclusion of the business before the General Meeting of Monday, Mr. William Woodward [A.] asked permission to make a suggestion in reference to the contemplated amendment of the London Building Act. Architects, he said, practising in London would endorse his opinion that some of the clauses of the Act were not so clear or so simple as they might be, and those charged with its administration were often placed in much difficulty in giving decisions. The present was an occasion on which the Institute could do very good work, and he therefore ventured to offer the following suggestion to the Council: That a circular should be sent to every member of the Institute, asking him to note, as briefly and concisely as possible, the particular section or sections of the Act he considered it was desirable to amend, and to indicate the particular way he would have the points amended. A small committee should then be appointed by the Council of the Institute, to collate and put in order the results of the circular, and frame a report thereon. That report should be brought before the Institute at a Special Meeting and discussed; and finally, a formal report should go to the London County Council, setting forth the views expressed by the Institute as to the best manner of amending the imperfections, and improving the working of the Act. By that means the County Council would be put in possession of what they no doubt desired to know, and

the faulty provisions of the Act would be amended in accordance with expert opinion, with a result beneficial to all.

The Chairman thought Mr. Woodward's suggestion a valuable one, and stated that it would be considered by the Council.

Miscellaneous.

Mr. Charles John Shoppee [F.], who died on the 18th ult., in his seventy-fourth year, had been a member of the Institute since 1862.

THE Hon. Secretary of the York Architectural Society announces the death, on the 15th ult., of Mr. N. R. Yeomans, who had filled the office of Treasurer of the Society since its foundation in 1882.

A LETTER has been received from the Société Régionale des Architectes du Nord de la France, announcing the death, in his eightieth year, of M. Henry Contamine, one of the original founders and Past President of the Society.

OWING to the inability of Mr. F. T. W. Goldsmith [A.] to act as Hon. Secretary of the Practice Standing Committee, Mr. C. H. Brodie [A.] has been appointed to the office, in conjunction with Mr. Edmund Woodthorpe [F.].

At the first meeting of the Competitions Committee, Mr. J. Macvicar Anderson [F.] was elected Chairman, *vice* Mr. Charles Barry [F.] resigned; and Mr. F. T. W. Goldsmith [A.] was re-elected Hon. Secretary.

PROFESSOR Baldwin Brown [H.A.] is delivering a course of twenty lectures on Italian Art, in connection with the Edinburgh Social Union.

Mr. Hugh Stannus [F.] is giving a series of ten addresses on "The Classic Elements of Architecture" before the Sheffield Society of Architects.

THE President, Professor Aitchison, A.R.A., during his recent visit to Dublin, delivered a lecture before the Dublin Architectural Association on "The Architecture of the Renaissance."

At the distribution of prizes at the Leeds & Yorkshire Architectural Society on the 16th ult., the two principal prizes were taken by *Students R.I.B.A.*, the Society's prize for measured drawings going to Mr. W. Driffeld, and the President's prize for sketches of old work to Mr. C. W. Tomlinson.

Mr. Laurence Hobson (Liscard), *Student R.I.B.A.*, on the recommendation of the Board of Examiners has been awarded the Arthur Cates Prize (value Ten Guineas) for Testimonies of Study prepared for the November Final Examination.

THE Festival Dinner of the Institute took place at the Whitehall Rooms on the 2nd instant. A full account will appear in the next number of the JOURNAL.



THE PICTURE GALLERY, CASSEL.

By J. D. CRACE [H.A.].

THE Picture Gallery (Dehn-Rotfelser) at Cassel, in Central Germany, is distinguished by at least two circumstances. It occupies a site of unrivalled beauty; and it contains, among other treasures, a splendid series of Rembrandt's finest works. It must be added that architecturally it is not unworthy of a fine site. There is a dignity and repose about the exterior which is consistent with its purpose; and on the principal floor the architect has turned to account the command of a splendid outlook by the loggia, or gallery, to which I shall again refer. The galleries are for the most part well lit and conveniently arranged; whilst the entrance and staircase, though not large, are so planned as to produce considerable architectural effect—enhanced by sculptured figures of great merit.

It is not my purpose, however, to discuss the architecture itself; but rather the coloured decoration as affecting it on the one hand, and as affecting the pictures on the other. I should explain that, ten years ago, when the treatment of our own National Gallery was in progress, this Cassel Gallery was constantly quoted to me by the late Director, Sir Frederick Burton, and by one or two of the Trustees, as altogether the most satisfactory of the European galleries. From that time to this I have always entertained the intention of visiting it, but was unable to do so until last May. I confess that the interior decoration fairly disappointed me. The colouring is crude and ill-balanced; that which was described to me with some enthusiasm as "coloured marbles" proved to be to a large extent "scagliola"; and the pictures are hung on ordinary distemper paperhanging of lamentably weak tones. I will, however, endeavour first to describe the general arrangement.

The building—of the rather cold German Classic Renaissance type—stands with its long south-east side flanking a broad terrace planted with shrubs and trees; whilst its north-east end and main entrance confront an open space bordered by other buildings, but open on the terrace side. Below the terrace lies a steep slope overgrown by trees and intersected by paths which lead down to a park-like space of meadowland which borders the river Fulda; and, beyond the river, miles of open country, woodland, fields and villages, only limited by the more or less distant hills.

Having then this view to our left, we enter at the main doorway and cross a rather low hall,

from which doors open to the lower vaulted rooms, in which are the sculpture and miscellaneous collections. Immediately opposite the entrance is the Grand Staircase, which, like that in our National Gallery, rises in broad single flights between marble side-walls surmounted by a balustrade of dark marble. This balustrade is broken by square piers, on which stand eight fine single figures sculptured in white marble, and symbolising the countries which have been the homes of art. The surrounding walls on the first-floor level are carried up with columns and side vaulting, the architectural features being here more enriched and ornate than elsewhere. The ceiling panels are of glass for top light.

We enter the first large gallery by a door confronting the stairs, and find a second, third, and fourth saloon in succession like the first. To the right (and west) of these large rooms, which are lit from above, lie a series of smaller rooms, or "cabinets," lit by side windows, and containing the smaller pictures; whilst to the left is the long arcaded corridor, or loggia, accessible from the centre room or at either end, in which the eyes may be rested by overlooking the beautiful prospect already described. It must be admitted that it would be difficult to place a picture gallery more favourably, and certainly there is much to be said for the architectural treatment; but for the surface colouring I have little to say in praise.

So far as the coloured marble features go (even though they be of "scagliola") the combinations appear well considered and, as between themselves, harmonious in tone. The misfortune is that the painted decoration, though not elaborate, sins as to its own discordancy and in its apparent ignorance of what is in harmony with pictures.

However, to take the interior in detail, beginning at the entrance: The hall is to all appearance entirely of polished marble; the walls, a sort of "rosso"; the columns, pilasters, architraves, skirtings, &c., are of a full grey marble. The two marbles harmonise well with each other and with the pavement of Roman mosaic, in which the plain centre is of mixed marbles, giving the general tint of red granite; and the ornamental border of black, white, red, and Siena tesserae. The doors are of oak. The ceiling is panelled in simple forms, painted a very pinky drab tint, with the enrichments relieved by a harsh red, and the central panels grounded with a malachite green. There are no pictures here; but this green is a very jarring note in the decoration.

The "rosso" marble of the hall is carried through to the walls flanking the stairs which conduct to the principal floor, and on this first floor we are in what may be called the staircase, a vaulted hall, in which stand the eight white marble figures on the balustrade of the landing. Here, from a plinth of dark marble, rise pairs of fluted Siena marble columns which carry the enriched frieze

and cornice, from which again springs the vaulted coving of the roof. The capitals and bases of these Siena columns are of a heavy clay-yellow colour, and the same tone of yellow prevails in all the enrichments, to which the grounds are picked in with a hot terra-cotta red. In hard contrast with this is a strong crude blue in the vaulting over the lunettes and in the principal wall panels. A dark chocolate-brown is used as margin in the vaulting, and as a ground to the clay-yellow ornament in the wall margins. As a result, one can but say that a really fine architectural effect has been seriously deteriorated by the hot and badly contrasted colouring. Fortunately, there are no pictures here. But we pass from the Grand Staircase directly into the first large picture saloon; and they are all four alike. Above, about one-third of the width is occupied by a low-pitched inner light of ground glass. This is surrounded by a bold frame in yellow and gold, with a 12-inch margin of strong ultramarine blue, broken by large gold stars at intervals, and framed again by a yellow and gold enrichment. This stops the large cove which rises from the cornice, and presents a surface of perhaps 6 feet girth, decorated with a sort of vertical stripe diaper in dull reds, varied at the centres and angles by a group of griffin and scroll ornament in yellow, outlined black, and with a bright blue medallion in the centre of each such group. This decoration appeared to me to be executed in paperhanging; as was also the wall decoration, of a pinky terra-cotta tone, with a wiry, meagre pattern in darker shade—each wall being thrown into a panel by a darker 5-inch margin and gold mouldings. The dado, 3 feet high, is of a dark greenish harewood, with black surbase and skirting; and the dressings of the doorways are of a cool grey-green marble with black mouldings.

An iron rail projects 16 inches from the wall at the dado height, to protect the pictures. The floor is of oak parquet.

It is on these somewhat pinky walls, sharply contrasted by the black doorways, that hang some of Rembrandt's masterpieces; whilst, overhead, the 12-inch wide border, of a brilliant deep blue, is brought into startling prominence by its gold stars and yellow framing. It seems as if human ingenuity would be severely taxed to find an assortment of tones less calculated to favour the powerful but low-toned colouring of Rembrandt's grand portraits; yet, by sheer force of holding the spectator's attention, and by their power and originality, they almost make one ignore the truculent decorations.

Of the smaller side rooms, or "cabinets," it is only necessary to say that they have plain flat ceilings, are lit by side windows, and that their walls have the same paper decoration: only the tint of this in the alternate rooms is of a peculiarly cold, thin blue green, which is, for the

majority of old pictures, rather worse than the pink terra-cotta.

The corridor, or "loggia," on the south-east side is divided by projecting piers and pilasters into eleven square bays. These pilasters and arches are highly enriched: the ornament, all in the "clay-yellow" already described; the plinth, of "rosso" scagliola; and each bay is covered by a low cupola, alternately greenish blue bordered by Indian red, and *vice versa*. The perspective effect is of a hot orange yellow tone, very unpleasant.

I have already mentioned that on the ground floor are vaulted galleries. These are devoted on the one side to casts of sculpture arranged chronologically; on the other to miscellaneous objects, such as gold and silversmiths' work, bronzes, clocks, coins, &c. The colouring of these seemed to me, on the whole, not unsatisfactory for their purposes. In the sculpture galleries (there are only *plaster casts*) the walls are of a light neutral grey with margined lines, the vaulted ceilings and piers of a rather too yellow-cream colour. The skirtings are of brown-paper tone, and the casts stand upon marbled pedestals of a willow-green. The general effect is cold, but otherwise not unfavourable to the casts.

On the "miscellaneous" side the walls are of a terra-cotta red with grey margins; the ceilings and piers of the cream tint, with marginal lines of a warm sage-green; and the showcases are painted a very light bronze tint, almost a greenish stone colour. This seems to me less satisfactory than dark wood, or black, but is not objectionable.

My general impression of the whole building was that its *permanent* features, both structural and decorative, were suitable to the position and purpose; and that the coloured marbles, or scagliola, were so arranged (as to their colours) as to admit of a very satisfactory decorative finish: but that—at least on the principal floor—the colouring, so far as it was produced by paint and paper, was bad for both building and pictures, and distressing to the visitor. Perhaps one must find consolation in the knowledge that the mistakes are made where they can most easily be remedied in the future.

REVIEWS. LXII.

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BUILDING STONES.

Stones for Building and Decoration. By George P. Merrill, Curator of Geology in the United States National Museum. Second edition, 80. Lond. & New York 1897. Price 21s. net. [John Wiley & Sons, New York; Chapman & Hall, 11, Henrietta Street, Covent Garden, W.C.]

Of the many materials for constructive purposes with which an architect has to deal, few, perhaps, are of greater importance than stone, for upon the

selection of a suitable material the character and durability of a building alike in a great measure depend.

To obtain a reliable knowledge of this subject at first hand requires considerable research, combined with some acquaintance at least with the elements of physics and chemistry, geology and mineralogy. If this be the case, it is perhaps not remarkable that, with the many and varied requirements of the architectural profession, but few can lay claim to that expert knowledge which is essential to enable them to form a reliable judgment upon the building stones which are from time to time brought before them.

In one case the architect may wish for a stone of a particular colour to harmonise with a scheme of chromatic decoration, and find one which in that respect is admirably suited to his purpose; but, using it, regret to find that the very matrix which imparts the desired hue to the material is of such an unstable nature that his æsthetic mouldings and ornaments crumble to dust!

In another case he may wish for an exceedingly strong stone, and yet one which at the same time shall be of such texture and colour as to harmonise with its surroundings, and so free working that it can be readily and economically cut into moulded or ornamental work.

These considerations form but a tithe of the many points which may influence one in the choice of stone for building; and, failing an intimate personal knowledge of the subject, special treatises are of immense value to the architect in enabling him to make a satisfactory selection.

Our American *confrères* are better served than we on this side of the Atlantic in regard to stone and its allies. At least one periodical, *Stone*, has devoted its pages to this subject for a considerable period. Of late, however, in this country an allied paper, *The Quarry*, has been issued; but we are unable yet to say if it has met with the success which it merits; and although our architectural and building papers devote many articles to a consideration of the subject, special treatises in this country are almost, or entirely, unknown. The oft-quoted Report addressed in 1839 to the Commissioners of Woods and Forests, on the selection of stone for the then new Houses of Parliament, is, by virtue of its age, rendered in part obsolete; and, as it has been laid under contribution to a large extent in Rivington's *Notes on Building Construction*, that, too, is not as complete as could be desired. Professor Hull's work on the building and ornamental stones of Great Britain, excellent, though not exhaustive even at the time of its publication, has also suffered by the lapse of years. *Slate and Slate Quarrying*, again, is twenty years old, and other works of minor importance are still older. Possibly, one of the most complete special works is the more modern treatise on *Granites and our Granite Industries*, by G. F. Harris. Small

though the above-enumerated list may be, it nevertheless includes the most important works on building stones which we possess in this country.

Mr. Merrill's work under review, so far as the United States are concerned and to quote the words of the preface, "supplies a comprehensive and not too technical a work on this subject." Although the question is treated, as the author intends, principally from an American standpoint in its detail, yet the broad principles apply to stone wherever it may be found. The mineralogy of stone, the physical and chemical properties, the weathering, selection, methods of testing and preservation, are alike applicable to all classes of stone, whatever country may be their source of origin.

In time-honoured manner the author devotes his first chapter to an historical retrospect on the use of stone in the United States. As we might expect, stone was not used to any appreciable extent in that country until a comparatively recent date. One of the first stone-built houses was that erected at Boston about 1650 for Deacon John Phillips. The stone was not quarried; but this and other houses, erected in 1737 and 1749, were constructed of granite "boulders" (the orthography repels us) found in their vicinity. The quarrying industry of the States did not assume any importance till early in the present century, when in 1825 granite quarries were opened at Quincy, Massachusetts. To us—with a stone quarrying industry which commenced at least as early as the seventh century for the Saxon work at York, Ripon, Hexham, and elsewhere, and continued with renewed vigour in Norman times—the newness of the New World is striking. The use of "boulders" at Boston, Massachusetts, in one sense had its prototype in England in the employment of the "sarsens" of Stonehenge and Avebury; but we may not linger on this aspect of the subject.

The distribution of stone in the United States is sketched, and the present and prospective resources of the States and Territories are classified and tabulated in such a manner that the actual or possible products of each can be readily seen. The British reader, however, inexcusably ignorant, it may be, of the exact disposition of the several States, Territories, Counties, and other geographical features of the vast tracts included in the United States, would be assisted by a map in following the descriptions of the distribution of stone therein. The author, perhaps, is satisfied that the many maps appended to the "Correlation Papers" of the United States Geological Survey will amply supply the deficiency. But maps are given of the marble regions of Knoxville, in Tennessee, and of Western New England.

The minerals which enter into the composition of building stones are dealt with under four headings: those which are (1) *essential*, as quartz is to granite; (2) *accessory*, those, that is to say,

like mica, hornblende, or biotite, which give a distinct type to the rock apart from its essential character; (3) those which are *original*; and (4) those which are *secondary*, owing their introduction in most cases to the action of percolating waters with minerals in solution, after the deposition of the original mass. The minerals which usually occur in rock masses are then dealt with in detail and their characteristics systematically discussed. The description of the effect of various minerals upon the colour, hardness, physical properties, and other characteristics of many of the United States building stones is particularly instructive, applicable as it is to stone generically. One or two examples may prove interesting. We are shown that mica has a very important bearing upon the working and weathering qualities of stone. Mica in itself is soft and friable, and hence an element of weakness; it therefore follows that when mica is present care should be taken to select those stones in which only small flakes are evenly distributed throughout the mass. Then, too, mica is of several species—some white, as *muscovite*; others black, as *biotite*; the prevailing colour, therefore, of a micaceous rock is largely dependent upon the particular variety of the contained mineral.

From a study of the component minerals of rocks we are naturally led to consider the condition in which they are aggregated, as the *density* and *hardness* of the resultant material will be altogether due to the manner in which those minerals are compacted; moreover, the *structure* is dependent upon the form, size, and arrangement of the component minerals. The author, following a well trodden path, then treats of the structure of rocks under two heads: (1) *macroscopic*, or that which may be detected without the aid of a microscope, and (2) *microscopic*, in those cases where it becomes necessary to have recourse to transparent sections of the rock to determine its structure. Illustrations and descriptions are given of a few examples in which the importance of this method of research is demonstrated; and, scattered throughout the work, further details are supplied which amplify the information. We venture to think, however, the author might have used his knowledge of this important method of observation to greater advantage. We might then more fully appreciate the effect of microscopic structure upon the behaviour of stones under climatic influences.

One paragraph is devoted to the chemical character of rocks, and the statement is made that "the chemical composition of a stone is often a guide to its suitability for structural purposes. Those containing much lime are more liable to be unfavourably affected by the acid gases of cities, and the various forms of iron present are of importance both regarding the weathering properties of the stones and their colours."

Though this may be accepted as true, it must be added that it requires considerable care to discriminate between chemical analyses to assess the relative value of any stone for practical purposes. Just as the same words of a language may be arranged in speech or literature of varying refinement, so in chemical compounds, of which stones are often complex examples, we may have a good, bad, or indifferent quality, dependent, not on the matter, but on its arrangement. It is for that, among other reasons, that we should place more reliance upon a microscopical examination, aided and amplified it may be, in some cases, if not in all, by a chemical analysis.

The chemical properties of the minerals contained in a building stone affect its colour very considerably, as the author points out, and the constancy of that colour is almost entirely dependent thereon. It is not sufficient, for example, to ascertain that iron is present, but the particular condition of the ore must be ascertained; for while "the sulphide, carbonate or other protoxide compounds are liable to oxidation, . . . the sesquioxide can undergo no further oxidation, and hence the colour caused by it is the most durable."

It would have facilitated comparison if the tables of chemical analysis appended to the volume had been so planned that the stone under consideration therein could be compared with those described in the body of the work; but, with somewhat few exceptions, this is not possible.

The vast resources of the United States in regard to all classes of building and decorative stones and allied materials may be gathered from the fact that the description of the most important districts occupies over three hundred pages of Part II. of the work under review. In the State of New York alone, according to Professor J. C. Smock (*Building Stones in the State of New York*), 352 quarries were open in 1887, of which as many as 235 were sandstone quarries, principally in the Hudson River "blue-stone." In Iowa, on the other hand, according to Mr. Merrill, 128 quarries are in limestone or dolomite, out of a total of 131.

Each class of building stone is separately grouped, and in each class arranged alphabetically by States. This method may not fully satisfy the scientific mind, but is of considerable practical value in that it facilitates reference. From an architectural point of view, one of the first considerations, perhaps, is that of colour, and in the brief review of the several classes of stone which we now propose to make a colour classification has been attempted.

STEATITE OR SOAPSTONE.—Though not properly a building stone, this material is of some economic importance in the United States. It is principally used, cut into thin slabs, for wash-tubs, and it also serves the purpose of a firestone. It

was at one time extensively used in New England for heating-stoves.

The soapstone is found in varying quantity and quality in many States, no fewer than sixty beds of the mineral occurring in Vermont alone, while it is said to be found in inexhaustible quantity in Texas, and to be plentiful in New York State and in North Carolina.

SERPENTINE and allied rocks of varying colours, green, light yellowish, blood-red, or almost black are found in some of the States; the finest quality, the "precious serpentine," of a rich green colour, occurs principally at Montville, New Jersey, but small pieces only are obtainable. Inexhaustible quantities of serpentine exist in the neighbourhood of San Francisco and other parts of California. At Milford, in Connecticut, occurs a mixture of calcareous and serpentinous minerals, green in colour, called *verde antique* marble. An allied variety, but varying in colour from bluish-grey to dove, is found at New Haven, Connecticut. Extensive deposits of serpentine, suitable for decorative purposes, are likewise found at Harford, in Maryland, and the Hoosac Mountain range of Massachusetts; it is also common in the massive form in several States, of which North Carolina and Pennsylvania may be cited as examples. The author is careful to point out the unreliable character of serpentine for exterior use. It should unquestionably be restricted to internal decoration in slabs of moderate dimensions, or to positions where no great size or strength is needed. It is flattering to our British vanity to read that "None of the American serpentinous rocks now known can compare in point of beauty, in variety and elegance of colours, with those of the Lizard district in Cornwall, England."

GYPSUM.—This mineral occurs in several of the States; but, with the exception of that quarried at Fort Dodge, Iowa, which is used for building, it is principally exploited for the manufacture of "plaster of paris" and similar cements.

MARBLES.—Under the term "marble," the author includes those limestones or dolomites which are sufficiently hard to take a polish.

The marbles of the United States are exceedingly diversified in character and colour; they are abundantly developed in many of the States, notably in Vermont—the principal marble-producing State—and in the region of Knoxville, Tennessee. Some of the principal colour-varieties may be enumerated. White marbles are found in Alabama, Inyo County, California, where the stone is stated to be pure snow-white, harder and finer than Italian marble; while at Yule Creek, Colorado, a still finer belt of white marble occurs. In New York State the Tuckahoe marble is crystalline and pure white; and white saccharoidal statuary marble is found in Vermont. Veined or clouded white marbles, with varying

shades of colour, are recorded from Alabama, California, Georgia, Massachusetts, and elsewhere. Grey marble, veined with red and of great beauty, exists in Shelby County, Alabama. Grey marbles of several varieties are found in Georgia and New Jersey; blue-grey in Vermont and in Virginia. Fossiliferous grey marbles are worked in Clinton County, Tennessee; and at Lockport, in New York State, they are extensively used for mantelpieces and ornamental purposes. Blue, crystalline-granular marble is found in Montgomery County, Pennsylvania. Yellow or buff-coloured marbles are described from Alabama, Iowa, and Missouri, though we do not gather that they equal in beauty the well-known Siena marble, unless we except the Inyo County yellow marble, which is nearly allied to it. Pink marble occurs in the northern parts of Arkansas, in Pickens County, Georgia, and in Virginia; while from North Carolina is described a beautiful flesh-pink marble, sometimes blotched or striped with blue and yellow. Red marbles are quarried in several States—Alabama, Missouri, New York, Tennessee, and Virginia, apparently affording the most important varieties. Black marble is associated with the Siena-like marble already mentioned in Inyo County; the quality is not excellent, but at Glen Falls, on the Hudson River, is a fine-grained blue-black marble (sometimes varied with a small white fossil) which polishes to a lustrous black. Very dark blue-black marbles are also found at Isle-la-Motte and other localities in Vermont. Greenish marbles from Missouri and Wyoming, and variegated marbles of several types, still further attest the richness of America in this valuable material. Of the variegated marbles, some are instanced as particularly ornamental; among them are the "bird's eye" marble of Iowa, a fossil coral-marble, only obtainable in small pieces; coloured marbles of various tints from Missouri, equalling the Tennessee marbles mentioned below; the "rose-crystal" marble of New Jersey, a beautiful combination of white, flesh-pink, and rose-coloured crystals of calcite with black mica and green pyroxenes; the chocolate and white, brownish-red, fossiliferous; rich olive-green, fossiliferous, red and green, pink and olive-green, and the dove-coloured marbles of Tennessee. Some of the most important foreign marbles—Canadian, African, and European—are dealt with in some detail.

ONYX MARBLES OR TRAVERTINES.—Onyx, properly so called, is a banded variety of the silicious mineral, chalcedony; but the name has been misapplied to certain calcareous stalagmitic or stalactitic deposits. Travertine (or calcareous tufa) is a chemical precipitate from the waters of hot springs. These stones, therefore, differ from marbles in being essentially chemical deposits. Some fine varieties are found in the United States, not perhaps so beautiful as those

from Mexico; but they do not appear to be very successfully worked from an economic point of view. These particular varieties of stone appear to have fascinated our author, for he somewhat elaborately details the onyx marble localities, not only of his own country, but also of Algeria, Egypt, Italy, France, and Spain. An interesting chapter on the use of onyx marbles in Egypt and other countries closes this section of his work.

LIMESTONES AND DOLOMITES (other than marbles).—Limestones and dolomites are well represented in the various States and Territories of America, a large number of workings being open. In Iowa alone, as we have already noticed, there are 128 limestone or dolomite quarries, and nearly all the quarrying in Illinois is in the same materials.

The dolomites, or magnesian limestones, are usually represented in the States by fine-grained, compact, light-coloured cream or buff-tinted stones, especially in Arkansas, Indiana, Iowa, Kansas, Minnesota, New York, Wisconsin, and elsewhere; while dark-coloured, grey, grey-blue, dull red, and brown dolomites are obtained in Illinois, Missouri, Minnesota, New York, North Carolina, and particularly in Ohio; but in the last-named State, the stones, though strong and durable, are principally used for pavings and rough works by reason of their dull colours. Compact crystalline limestones, but little removed from marbles, are quarried in some localities; a black, finely crystalline stone of this character occurs in Colorado, and light-coloured, fine-grained limestone of a like kind is met with in Texas. The compact, non-crystalline varieties of limestone are very abundant. For the most part they are either of light drab or cream colour, as in the greater number of the quarries enumerated in Kansas, Illinois, and Iowa; or dull grey, as in some of the quarries in Alabama, Maine, Missouri, Ohio, and other States. In some districts fossiliferous limestones are worked, of which the following may be mentioned: The coarse, shelly limestone of Florida; the grey, highly fossiliferous stone of Greenport, Columbia County in New York State; and the light pink, finely fossiliferous stone at Columbia in Tennessee; or the *Foraminiferal* limestones of Kansas and Nebraska, of which the author is careful to tell us, in both cases, that the fossil rhizopod *Fusulina* is the size of a grain of wheat. Oolitic varieties of limestone are also plentiful in the States. That most valued, apparently, is the light-coloured "Bedford oolite" of Lawrence County, Indiana, a stone which is now extensively used in nearly all the important cities of the country. In Kentucky, the fine, light-coloured oolites have only a local reputation, but they are said to be without superiors, or even, perhaps, equals. A beautifully oolitic, blue-grey stone of sub-carboniferous age is found in Missouri. Oolites of varying quality are likewise met with in other localities, of which Arkansas, Florida,

and Iowa are the most prolific; but they are not in most cases recommended for exterior work.

A chapter is devoted to the description of some ornamental stones, mostly foreign and rare, which are occasionally used for decorative purposes. Among such stones are included the attractive, iridescent *Labradorite*, the green and blue carbonates of copper, called respectively *malachite* and *azurite*, and others.

GRANITES AND GNEISSES.—The composition and general properties of granites are first described, together with the geological age, the mode of occurrence, and the varieties and uses of granites. Some of the principal colour-varieties of American granites may be noted. White granite occurs at Mount Katandin in Maine, and an almost white muscovite variety of granite is found in Vermont. Light and dark grey and blue-grey granites or gneisses are plentiful in California, Connecticut, Maine, Massachusetts, New Hampshire, and to a smaller extent in several other States. In some localities a greenish tint prevails, as in the quarries at Rockport, Massachusetts; in Montana; and in the Vernon Valley, New Jersey. As these rocks bear hornblende with biotite they are not true granites. Pink granites are not uncommon, that from the Calais and Jonesborough district of Maine is said to be finer in texture and of a more delicate pink than the Scotch granites. Our author does not specifically state that it rivals the Corrennie granite, which is of such a delicate salmon tint. Red granites are likewise plentiful, particularly in Connecticut, Maine, and Massachusetts: that from Lyme in Connecticut is said to far excel the Scotch Peterhead granite. Porphyritic varieties are often associated with the granites already mentioned—one from Rockingham, North Carolina, with large pink crystals of felspar, is said to recall that of Shap.

PORPHYRIES.—Rocks with distinct crystals, usually of quartz or felspar, scattered in a ground mass of a more or less amorphous character, are classed as porphyries; but only when this appearance is clearly discernible to the unaided eye, so that the term is somewhat loosely applied. The author states that "inexhaustible quantities of porphyries of a variety of colours and great beauty occur at Saugus, Malden, Lynn, and Marblehead, and other localities in eastern Massachusetts." Many varieties ranging from red to black in colour are met with in New Hampshire. A fine stone with white crystals in a black base is found at Green Lake, Wisconsin. Another porphyry, the converse of the last-named, having black streaks in a white base, occurs near Charlotte, North Carolina; while a deep red quartz-porphyry, somewhat like the Egyptian red variety, has been met with on the Carson River, Nevada.

Space will not permit one to dwell upon the **LIPARITES**, or glassy eruptive rocks, of which obsidian may be instanced as a variety, nor upon the

felsitic or porphyritic varieties of the same, which are quarried and used to some extent, principally in the Western States.

SYENITES, or quartzless granites, in which the quartz is replaced by mica or by hornblende, augite, &c., occur in various localities, particularly in the vicinity of Little Rock, Sabine County, where a blue-grey variety has been extensively quarried, and, as the rock covers an area of many square miles, the supply must be almost inexhaustible.

We can here only allude to those rough, somewhat porphyritic, dull-coloured rocks of volcanic origin known as **TRACHYTES**; and to those eruptive rocks which are specially interesting to the geologist, forced up as they have been as dykes, or intruded in sheets or bosses into and among other rocks. Sombre in colour, usually of a dull grey, greyish-green, or nearly black, they are, by reason of their toughness and hardness, mostly employed for pavings, road-making, and similar purposes in the States, as elsewhere. Many varieties of these rocks, each bearing a distinctive name, depending upon its structure and composition, are known to the petrologist; they are roughly, though quite erroneously, often referred to as granites.

SANDSTONES and allied rocks are distributed over a wide area of the States, and thoroughly strong, reliable, and ornamental stones of a variety of colours can be obtained. Among the principal colour-varieties we notice the following. White, or nearly white, sandstones or quartzites are described from Colorado and New York. Yellow and buff sandstones are common in Alabama, California, Colorado, Mississippi, Missouri—where a fine light-buff sub-carboniferous stone of good quality is found, and in Ohio, Texas, and other States. Brown and red sandstones are still more generally represented, and we can here only notice the important stone quarries of reddish-brown triassic sandstone of Portland and Middletown, in Connecticut, and the Potsdam sandstone in New York State. The latter forms an ideal stone, the granules and cementing material alike being almost entirely silicious, with just sufficient iron oxide to impart a reddish tint. Pink sandstones are not so well represented, but examples are cited from Arizona, Kentucky, New Mexico, South Dakota, and elsewhere. Grey varieties are very generally distributed in the sandstone districts already alluded to; they are often termed "blue stones," and are typically developed and worked in New York State. In Ohio the "Euclid blue stone" and the Berea grit both furnish excellent grey or blue-grey sandstones. A greenish-grey sandstone is quarried in Quebec; but that does not appear to have been used in the States.

SLATES.—Several interesting colour-varieties of slates are recorded from the United States. The most prevalent colour is apparently blue-black. One of the most important slate industries is that of Maine, in beds of reputed Cambrian and Silurian

age. These slates are all blue-black, as are also the slates worked in Maryland, Pennsylvania, Texas, and parts of Vermont. Some of the purple slates, notably those of the Western regions of Vermont, are said to resemble closely the Welsh slates. Dark blue slates are found in New Hampshire and in parts of Pennsylvania. Black slates are recorded from Michigan, where the quality is stated to be excellent, as the material is very uniform in colour and of fine silky grain; and from some other States, *e.g.* Minnesota and parts of Vermont. Reddish-brown or brick-red slates are not uncommon in some districts of Vermont and New York, and, finally, green slates of Cambrian age are quarried in Washington County, New York, and in beds of presumably Silurian age on the Hudson River.

In Part III. the geological causes of the bedding and jointing of rocks are discussed, together with the facilities which the bedding and jointing afford to the quarryman. The quarry methods proper to each class of building stone, the machinery for extraction, and the tools for dressing and finishing are described at some length. In a chapter on the weathering of building stones, the effect of physical agencies upon different kinds of stone is carefully considered. A somewhat striking example of the force exerted by changes of temperature is adduced in regard to the Bunker Hill monument:

"A hollow granite obelisk, 221 feet high by 30 feet square at the base, which swings from side to side with the progress of the sun during a sunny day, so that a pendulum suspended from the centre describes an irregular ellipse nearly half an inch in greatest diameter."

The effects produced by friction and by chemical agencies upon various kinds of building stone are then considered, followed by a description of the methods to be observed in selecting and testing stone; but the author warns his readers that the problem of ascertaining the actual qualities, good or bad, of any stone by laboratory or other tests is peculiarly complicated and difficult. After explaining the tests that are usually practised, he concludes this portion of the work by expressing his belief in the value of field examination in those cases where good natural exposures or quarry openings of long standing exist. It is certainly necessary thus to qualify the belief in the value of field observations. We could not determine the value of any new stone in a new quarry, unless we could be sure of its absolute identity with the weathered stone—a point not always easy of proof.

The concluding chapter treats of the methods of protection and preservation, and several of the preservative paints, oils, soaps, or solutions employed to doctor bad or indifferent stone are detailed. We notice that "Fluate," one of the least advertised, and possibly best, solutions used

in France, England, and elsewhere of late years, is omitted from the list.

The appendices are lengthy and useful. The first tabulates the crushing weights, rate of absorption, and chemical composition of many American building stones; the second, the prices and cost of cutting; the third, a long list of some of the more important stone structures of the United States; the fourth, a bibliography of works on stone; and the fifth, a careful glossary of terms used in the work.

Mr. Merrill is to be congratulated on the comprehensiveness of his work, and on the manner in which it is set forth. We regret, as has already been said, the paucity of maps. Some of the views, notably Plate III., are excellent; but others are somewhat uneven in character, and we confess to a preference for the photographic plates.

HENRY W. BURROWS.

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THE GARMENT OF LIFE.

Art and Life and the Building and Decoration of Cities. Arts and Crafts Lectures. By Members of the Arts and Crafts Exhibition Society. 8s. Lond. 1897. Price 6s. [Messrs. Rivingtons, Henrietta Street, Covent Garden.]

"Art," observes Mr. Lethaby, "is but the garment of life. It is the well doing of what needs doing."

This pretty phrase may be said to form the *motif* on which this series of essays is constructed. The thought—in a hundred forms—reappears continually in the book, which is a reprint of a course of lectures delivered before the Arts and Crafts Exhibition Society, by well-known members, in the autumn of 1896. Mr. Cobden Sanderson opens with a delightful reverie on the intimate connection of art and life. Mr. Lethaby looks longingly back upon the romantic cities of the past, and peers a little tremulously into the future. Mr. Walter Crane pleads for the decoration of our public buildings. Mr. Reginald Blomfield rambles along the formal gardens that he loves so keenly. Mr. Halsey Ricardo bathes in an imaginative wealth of glowing colour. The essays are full of delightful definition and subtle suggestion, and should be read, if only for the sheer pleasure of reading them.

The essays, however, were not intended merely to charm and delight our sense of literary fitness. So far as I understand them, they were written with the object of inducing the readers to yearn for the realisation of the ideals which yield the writers such infinite pleasure. The critic therefore must take this as his standpoint; and when he does this, a fear suggests itself as to whether the essayists have gone altogether the best way to work. It may of course be urged that a beautiful conception strengthens the craving for beauty in our everyday life. If this view is

taken, much may be said in favour of the attempt to stimulate our imagination by weaving wonderful ideals—exquisitely beautiful, absolutely impossible. But alas! the wood that we are trying to set aflame is so cloggy and wet that our brave brilliancies are apt to flare up brightly for a time, and then flicker, flicker out with their purpose unachieved, and the resulting blackness but too accurately represents our own resulting despair. I would rather search for a living spark within the dull logs, and watch it ever so narrowly and tend it ever so tenderly until it bids fair to make headway by its own strength. We live in a dull prosaic age, with few noble ideals. Demos is moved by the needs of the moment, and all he will allow the idealist to do is to indicate the direction which his already determined action may take.

May I become personal? Mr. Lethaby in his consideration of modern London starts in the right vein. "We should begin on the humblest plane by sweeping the streets better, washing and whitewashing the houses, and taking care that such railings and lamp-posts as are required are good railings and lamp-posts, the work of the best artists obtainable." He admits the futility of heroic schemes of improvement, and repudiates all idea of grandifying London as a whole; but his nervous pen begins to write more rapidly, and we find ourselves carried away to the contemplation of a magnificent avenue from the British Museum to Waterloo Bridge—a Sacred Way, from which traffic is to be excluded. Now, to speak perfectly frankly, is there the remotest chance of such a scheme being adopted? We see the beauty of it. We may sit in our rooms and dream of it as we dream of the Golden City. We may wish our fellow-citizens saw what we see, and mentally chide them for being so blind as not to see it; but in our heart of heart, in that inner heart that never fails to speak the truth, we know that we are drifting away from the facts which govern action, and that we must reawake from our dream to the horrid realities of life, which become all the more horrid by the contrast. Do not mistake me. I do not say that our dreams should not pass the limits of immediate popular comprehension. There is no reason why our ambitious schemes should not be cosily tucked away in the back recesses of our brain, and brought out piece by piece as occasion seems to offer; but even then the scheme must be realisable, and, I think, also capable of being defended on other than artistic grounds.

One other protest, and I cease from girding at a book which contains so much that is admirable. I want to lift up my voice against pessimism. I know what a host of witnesses surround us, tempting us to enlist in the army of pessimists; but, honestly, what is the practical good of it? What good is it doing France to-day? Pessimism,

especially in its more cultivated forms, seems to sap that vital energy which is necessary for action. And surely to do nothing—and then to regret that nothing is being done—takes one perilously near the vicious circle. Moreover, is there any real ground for pessimism? I should say that the signs of a new awakening of artistic life in England have rarely been so promising as they are to day. We have revived and revived till we are tired of revivals. We are beginning to yearn for the beautiful in itself, and if this yearning occasionally breaks out with strange and uncouth forms with which we are not familiar, let us nevertheless be tender and sympathetic. The general line of growth is good, and isolated eccentricities will in time correct themselves.

We must not be discouraged because our efforts do not at once produce the response we had hoped for. Modern life is terribly complex. Men become so specialised and so absorbed in the tiniest of tiny corners in which they are fated to earn their bread, that they cannot easily rise to the contemplation of the greater issues of existence. The factory worker, fagged out after a hard day's work, crowding with his fellows into a crawling train, and finally arriving at his small stuffy room, filled with children—how can he think of beauty? Yet it is idle to ignore the fact that these factory hands are an influence that must be reckoned with in any scheme for the beautifying of London.

Al! this beautifying of London. What a very serious thing it is! I yield to no one in my intense love for London. Its wondrous half-lights, its grand grey spires, its mighty dome that reigns in silent majesty over the busy ebb and flow of life below, its noble river Embankment, one of the greatest works of this century! London is wonderful, but London is also hateful. It has its kitchens and its sculleries. Go from the "Angel" through Hoxton, Bethnal Green, Stepney, and Limehouse, and you will pass through city after city where meanness only gives place to meanness. Cross the river, and the same story repeats itself. It is all dull, all monotonous, all sordid. This is the problem that we twentieth-century architects have to solve, and I wonder how we shall do it?

OWEN FLEMING.

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WOOD-CARVINGS.

Choir-stalls and their Carvings: Examples of Miscricords from English Cathedrals and Churches, sketched by Emma Phipson, with an introduction and descriptive notes. 2s. Lond. 1896. [B. T. Batsford, 94, High Holborn.]

This is a book whose entire scope is defined on the title-page. The author has visited a great many cathedrals and churches in England, has sketched the choir-stalls, and appended a short

line of text to each. A book on the same plan, but dealing exhaustively with the subject, would serve as a final work of reference and be invaluable to the student. But the present volume, being confessedly incomplete, can have little value for the professional man, and its merits must be judged from the standpoint of the amateur. The volume is very tastefully got up, and the arrangement of pages of descriptive text facing the plates is one of commendable lucidity. The work bears evidence of loving care for the subject. It could be more greatly praised here if the JOURNAL appealed to the general public instead of a circle of professional readers.

Books received for Review.

Cambridge Described and Illustrated: being a short History of the Town and University. By Thomas Dinham Atkinson, with an Introduction by John Willis Clark, M.A., F.S.A. 80. Lond. & Camb. 1897. Price 21s. net. [Macmillan & Co., 29 & 30, Bedford Street, Covent Garden; Macmillan & Bowes, Cambridge.]

Painting and Decoration. By Walter Pearce. 80. Lond. 1898. Price 12s. 6d. [Messrs. Charles Griffin & Co., Ltd., Exeter Street, Strand.]

The Ecclesiastical Architecture of Scotland, from the earliest Christian Times to the Seventeenth Century. By David MacGibbon & Thomas Ross, Authors of "The Castellated and Domestic Architecture of Scotland." Vols. II. & III. 80. Edin. 1896 & 1897. [Mr. David Douglas, Edinburgh.]

MINUTES III.

At the Third General Meeting (Business) of the Session, held Monday, 29th November 1897, at 8 p.m., Mr. W. M. Fawcett, M.A., F.S.A., *Vice-President*, in the Chair, the Minutes of the Meeting held 15th November 1897 [p. 52] were taken as read and signed as correct.

The Hon. Secretary announced the decease of Mr. Charles John Shoppee [F.], elected *Associate* in 1862, and *Fellow* in 1880.

A list of Donations to the Library [see SUPPLEMENT] was taken as read, and an expression of the thanks of the Institute to the several donors was ordered, on the motion of the Hon. Secretary, to be entered on the Minutes.

The following candidates for membership in the various classes were elected by show of hands under By-law 9, namely:—

As Fellow.

JOHN JAMES BURNET [A.], A.R.S.A., Glasgow.

As Associates (15).

GEORGE HASTWELL GRAYSON, B.A. Cantab. [Probationer 1893, Student 1894, Qualified 1896], Liverpool.

CHARLES DIXON ROCHESTER [Probationer 1890, Student 1893, Qualified 1897], Manchester.

ARTHUR JOSEPH SINGLETON SHAW [Probationer 1891, Student 1893, Qualified 1897], Oldham.

OSGOOD SMITH [Probationer 1890, Student 1893, Qualified 1897].

PERCY WILLIAM MEREDITH [Probationer 1890, Student 1893, Qualified 1897].

HAROLD CONYBEARE TRIMNELL [Probationer 1892, Student 1894, Qualified 1897].

RICHARD HENRY ERNEST HILL [Probationer 1892, Student 1894, Qualified 1897].

PERCY MORRIS [Probationer 1892, Student 1894, Cates Prizeman 1897, Qualified 1897].

GEORGE WILLIAM HATCHER (Qualified 1897).

ERNEST WILLIAM MARSHALL [Probationer 1895, Student 1895, Qualified 1897].

HERBERT CYRIL SINNOTT [Probationer 1890, Student 1893, Qualified 1897], Bristol.

JAMES HENRY CORAM [Probationer 1894, Student 1895, Qualified 1897].

WILLIAM STANLEY BATES [Probationer 1894, Student 1895, Qualified 1897].

SAMUEL SEBASTIAN REAY (Qualified 1897), Bath.

JAMES RICHARD FLEMING (Qualified 1897).

As Hon. Corr. Members (4).

CONDE DE SAN JANUARIO, Lisbon.

JOHAN LOUIS USSING, Copenhagen.

SETTIMIO FEDELE GERARDO GIAMPIETRI, Cavaliere of the Crown of Italy, Rome.

ARNALDO RODONDO ADÆS BERMUDEZ, Lisbon.

The Secretary announced the results of the Preliminary and Intermediate Examinations held in London, Manchester and Bristol, and of the Final and Special Examinations held in London, during November, and read the names of candidates who had passed [p. 60 *et seq.*].

Mr. Wm. Woodward [A.], having referred to the intention of the London County Council to apply to Parliament for an Act to amend the London Building Act 1894, and suggested means by which the views of members concerning portions of the Act requiring amendment might be ascertained and brought to the notice of the County Council, the Chairman undertook that the suggestion should be brought before the Institute Council and considered by them in due course.

The Business Meeting then terminated.

At a Special General Meeting convened for the consideration of a change in By-law 30 proposed by the Council, such Meeting being held at the conclusion of the Business Meeting above referred to, the Chairman, Mr. W. M. Fawcett, explained that the alteration suggested was desirable as enabling retiring members of the Council cognisant of business in progress to share in its conduct until the close of the Session, instead of giving place, as they were compelled to do under the existing by-law, to newly-elected members fresh on the Council and consequently unacquainted with the work in hand.

Fellows only being entitled to vote in respect of an alteration of a by-law, the question arose whether a sufficient number were present to enable the Meeting to deal with the matter, whereupon, the material clauses of By-law 62 having been read, the Chairman ruled that there being more than twenty subscribing members present, including over eleven Fellows, the Meeting was competent to decide the question, and the motion having been put from the Chair, it was

RESOLVED, *nem. con.*, that in order that the Council of the Royal Institute may remain in office until the close of the last General Meeting in June of the year following that in which they were elected, the following alteration be made in By-law 30—viz. that in the last line but one of the final clause the word "last" be substituted for "first."

The proceedings then terminated, and the Meeting separated at 9 p.m.



HOLYWELL PRIORY, SHOREDITCH.

By E. W. HUDSON [A.].

Part II.—The Buildings and Remains.*

IN the absence of any precise and connected contemporaneous account of buildings, we are driven back to what are chiefly historical records, and, after deducing as much as possible from them as to plan and accommodation, to supplement it by careful examination of contemporary structures of the same or a kindred order of Religious. One of the nearest is Rahere's Priory of St. Bartholomew, Smithfield, which, founded in 1102 (the church, 1123), only six to twenty-five years earlier than that of Haliwell, which Maitland (p. 1368) dates between 1108 and 1127, would be similar as regards style; massiveness and simplicity being the chief characteristics. I believe no draught of the church exists. It was probably cruciform, with tower at the crossing; nave with aisles, and apsidal choir. Most of the early churches of the Benedictine Order were of this class, although square east ends were used,† and even a parochial type in later examples was sometimes adapted, as at St. Helen's, Bishopsgate, which had only a wide north (the Nuns') aisle, and no crossing.

It is scarcely likely that Bishop Gravesend (circa 1318) rebuilt much of the Priory. Lovel's additions were, besides his own beautiful chapel, probably enlarged windows, alterations at the east end, more commodious dwellings and gatehouses, and possibly heightening of the clerestory. (The alterations to St. Bartholomew's in the fifteenth century have been described as "rebuilding," and it is unlikely that Lovel's alterations were more extensive than there carried out.) Weever says he was a benefactor "not only in building a beautiful chappell, wherein his body was interred, but in many other goodly buildings."

The earliest account I find of buildings at Haliwell is the schedule made just after the dissolution of monasteries *re* the grant to Webbe, setting forth what was within the curtilage, its annual rent value for purchase, what was to be done with the old materials, rights reserved to tenants, &c. First, however, I will proceed to note what has been since then written respecting the actual

remains, for this (except Stow's brief account) is the only early description.

Maitland, who wrote in 1756, briefly mentions them, and Dodsley's book comes next in order, and has this reference,* evidently

borrowed from him :

Its ruins are still to be seen in *Saint John's Court* in Holiwell Lane: the populace unjustly consider these are the remains of *Saint John's Palace*, though it does not appear that ever any royal (*sic*) mansion was in this neighbourhood.

Here is evidently a *lapsus calami* in copying from Maitland, who says the remains were spoken of as "*King John's palace*." (Noorthouck, twelve years later, quotes correctly and in full.)

1783.—A writer in the *Gentleman's Magazine*, Nov. 1788, fully describing the parish at large, says: "In this (Holywell) Liberty is a court called *King John's Court* (rather filthy at present); why it has a royal appellation is very uncertain. *I have seen antique remains of buildings there, formerly consequential.*"

Chassereau's survey of the parish, already referred to, is to a scale of about 400 feet to an inch, and one reference number is "90" against a projection on a large building (Vol. IV., fig. 2, p. 470), and another is "80" placed in the middle of "*Holywell Court*," while the marginal notes state against both numbers, "*Here are remains, &c.*" It seems clear that the projection "90" was ancient, but what extent of remains were to be seen around the court is not clear, nor can it be exactly determined to what portion of the Priory they belonged. I do not consider that the large rectangular building itself was ancient, but that it had been erected on the site of the church, utilising some of the wall of it, probably that of the south aisle. Had it all been ancient work, the "90" would most likely have been put on it instead of by the side. The enlargement given [fig. 4] shows in cross-hatching suggested extent of old work extant at that date. Although this seems the most careful survey of all, it differs largely from those of Strype and Roque, but all show that in a modified form the arrangement of old court and cloister is retained.

1789-1806.—In the original issue of the work (A.D. 1586) and early editions, Haliwell is not mentioned, but in Gough's edition of Camden's *Britannia*† is an addition which specifies the nature of one portion then extant, viz. "In Shore-

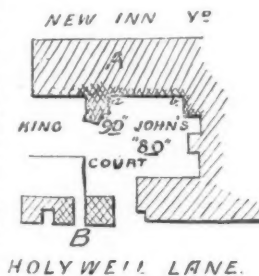


FIG. 4.
Cross-hatched as probable ancient work (1743).
A, Site of Work. B, S. Gatehouse.

* For the various sections of Part I. (History) see Vol. IV. pp. 433, 469, 488.

† Barking Abbey Church was an example, A.D. 1215, plan in Lyson's *Environs*, Vol. IV. p. 71.

* *London and Environs*.

† 1789, p. 30.

ditch was Holiwell, a Benedictine nunnery, founded 1127. . . *A gate of it remains.*"

This must be one part of remains shown on Chassereau's map, but not all of them. Seventeen years later, in a new edition, the statement is repeated.* Yet, in Ellis's *Shoreditch* (1798), or eight years *ante*, he says: "The gateway mentioned in the new edition of Camden (evidently that of 1789) was *destroyed about 1785*, and but few traces of the Priory are left."

The discrepancy does not appear to have been noticed, although the writers were in communication. Ellis, although a careful investigator of records, seems to have been in error as to its destruction in 1785, which would have been four years before the first mentioned edition of *Britannia* with that statement appeared. Moreover, he says,† Gough told him he had searched for the Lovel inscription without success; so that he must have examined whatever ruins there were, and would hardly have retained in two editions information not up to date, supposing his supervision extended beyond the first volume of that of 1806, which is considered doubtful.

I believe the reference to be to the south gatehouse in Holywell Lane, that it existed, at all events, in 1789, and soon after all above ground was destroyed for the erection of the "Old King John," and the poor tenements not so very long ago replaced by modern houses and shops. The Ordnance Survey is inscribed "*Site of Gateway*" at the point in the lane where the North London Railway crosses it. In that position it seems as if it must have opened into the cloisters on the south side of the church, and this would have interfered with the privacy of the inmates, whereas if it be located more to the west it would most probably have opened into the domestic court. There was a "lower gate" which may have given the public access to the church and the mead or garden wherein the well was situated, without the necessity of entering the cloister. Or a postern in the west wall (Ditch side) may have done this independently, a track from Barbican and Cripplegate (which is indicated on maps) would afford quite a direct route from central London.

This conclusion reconciles the discrepancy of locality and the date of demolition. In Chassereau's survey the before mentioned reference (No. 90) is about 120 feet south of New Inn Yard and 130 feet north of Holywell Lane, and this is certainly too far inwards to be the south gatehouse, then (1745) extant, and perhaps indicated by the detached block on the Holywell Lane frontage, but no special reference number added.

After asserting that the gateway was gone in 1789, Ellis continues, "*but few traces of the Priory are left*"; therefore it is most probable that besides the projecting block No. "90," there were others about Holywell Court as indicated in a general way by Chassereau's No. "80."

* 1806, p. 103.

† *History of Shoreditch*, p. 201.

No representation of the gateway is to be found, although of those at Bermondsey and of Holy Trinity, &c., engravings are given in Smith's *Antiquities of London*. They show a large arch for cartway, and a narrower and lower one for the footway entrances. That St. John's Gate, Clerkenwell, is so well preserved is a matter for great satisfaction, and Mr. W. Monk's recent etchings will help to revive the interest these remains should excite.

1823.—In Ellis, Caley, and Bandinel's edition of Dugdale* the following fresh information brings the original account up to that date, viz. :—

The present remains . . . are confined to some walls, a small arch, and part of a doorway in a back cellar of a public-house, known by the sign of the "Old King John."

A stone gateway, the last principal building of the nunnery which remained, was taken down *about* the year 1785.

As Ellis was a co-editor with others he may be responsible for this statement. Whenever it was this structure was demolished, the remains, if far *behind* this public-house, could hardly be part of the gatehouse, but if *below* they no doubt were so. Whatever they were, they remained in existence later than 1823, for the above statement is repeated in the ed. of 1846; and besides this,

1853 Mr. W. S. Hendry, a writer in *Notes and Queries*,‡ who examined the *locus in quo* in 1843, states: "Part of the *chapel* is now to be found under the floor of the 'Old King John,' and the stone doorway into the porter's lodge of the Priory still exists, but from the accumulation of earth the crown of the arch is six feet *below* the ground."

But if we assume this doorway, as that of the porter's lodge, to have been originally seven feet high, it would make the cill thirteen feet below the present surface, which is an unlikely increase of height by accumulated deposit, even in four centuries.§ If that "back cellar" was underground, and those remains were identical with the arch which is here spoken of as six feet below, I should conclude it was not the porter's lodge door, but rather one in a cellar beneath it. Nor could the front entry have been very far from Holywell Lane, as the note "in a back cellar" would imply, for it seems clear the south gatehouse was close up to the lane.

Further, regarding Mr. Hendry's statement, if we consider that the church itself was set back enough to admit of a cloister or courtyard on the south side, would it be likely that the foundations of Lovel's Chapel could be under the floor of a building so close to the lane as was this hostelry? Mr. Hendry says he sketched the arch and some other remains of the Priory, also underground, but it was not published.

(To be continued.)

* *Mon. Ang.* 1823. Vol. IV. p. 392.

† Vol. VII. p. 332 (1853).

‡ The ground at St. Bartholomew's has been raised about six feet above the original surface.

